REDACTED VERSION

DRINKING WATER SURVEY REPORT

FORMER DELFASCO FORGE FACILITY
VCP NO. 1571
114 NORTHEAST 28TH STREET
GRAND PRAIRIE, TEXAS 79044

Prepared for:

Delfasco

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EXECUTIVE SUMMARY

In accordance with Texas Commission on Environmental Quality's (TCEQ) *Preparation of a Drinking Water Survey Report* and *Instructions for Collecting and Submitting Site and Private Water Well Location Information*, EnSafe Inc. (EnSafe) has performed a Drinking Water Survey for the former Delfasco Forge Facility and has prepared this Drinking Water Survey Report. The former Delfasco facility is located at 114 Northeast 28th Street, Grand Prairie, Dallas County, Texas and is under the TCEQ Voluntary Cleanup Program (VCP), VCP No. 1571. In 2002, during subsurface investigation activities conducted by EnSafe, groundwater at the former Delfasco facility was discovered to have been affected by trichloroethylene (TCE). Subsequent investigation activities discovered affected groundwater is present offsite. At that time, EnSafe estimated the boundaries of the groundwater plume and provided notification to appropriate property owners.

EnSafe submitted an *Amended Voluntary Cleanup Program (VCP) Agreement and Project Update, Former Delfasco Forge Facility 114 Northeast 28th Street, Grand Prairie, VCP No. 1571*, (January 21, 2005). The data included in this January 21, 2005 submittal was intended to provide a project summary update to support the request for a deadline extension to the Affected Property Assessment Report (APAR) and although the investigation was not complete (i.e. impacted groundwater and soil had not been fully delineated), the extension was denied and EnSafe submitted the APAR in May 2005. The January letter was not intended to be a comprehensive report, and therefore, did not contain all the information generated to date. The TCEQ issued a response letter dated February 17, 2005 and requested that a *Receptor Survey Report* be submitted that met the requirements set forth in the TCEQ document, *Minimum Requirements for a Receptor Survey*. The Receptor Survey Report was submitted in March 2005, and satisfied TCEQ's request and identified and evaluated possible receptors to the affected groundwater surrounding the former Delfasco Forge Facility. TCEQ

In August 2004, an initial field survey of properties within the search radius (0.25-miles from the site) identified three private wells for the *Receptor Survey Report*. The field survey consisted of a water well survey mailing to all residents within the search radius, and a door-to-

door survey of these residents that was assisted by the City of Grand Prairie Environmental Services Department. Two of these wells (PW01 and PW03) were dry upon inspection. Private well PW02 did contain water and was sampled for volatile organic compounds (VOCs); low levels of TCE and its daughter products were detected. The resident was notified of the results and although the well was not being used, EnSafe recommended to the property owner in a notification letter that water from the well should not be used in the future.

EnSafe conducted a local drinking water source survey, field survey of water wells, and a water well record survey to meet TCEQ's *Drinking Water Survey Report* requirements. Local public water supply (PWS) is supplied by the City of Grand Prairie. According to the City of Grand Prairie and the PWS map enclosed in this report, all properties within the search radius (0.25-miles from the plume boundary) are serviced by the City of Grand Prairie PWS.

In March 2006, an expanded field survey of properties within the search radius (0.25-miles from the plume boundary) identified eight private wells and one public well. The field survey consisted of a water well survey mailing to all residents within the search radius, and a door-to-door survey of these residents. The existence and/or location of five additional reported wells have not been confirmed by EnSafe. Results of the March 2006 field survey were provided to TCEQ on March 24, 2006 so that additional affected and potentially affected private water well owners could be notified.

The water well record surveys identified four wells in the search radius (0.5-miles). Three of the four wells were plugged and abandoned. One well (State Well ID No. 3309703) is still active and reportedly used by the City of Grand Prairie as an emergency PWS well. The well is steel-cased to its total depth of 2,163 feet below ground surface (bgs), and is screened from 2,006 to 2,163 bgs. Due to the depth of the well, construction type, and distance from the affected groundwater plume, it is unlikely that the groundwater in this well has been affected by the groundwater plume.

To determine changes in the status of the receptor sites and to ensure receptor sites are not being utilized, monitoring of the identified receptor sites will occur throughout the subsurface investigation.

1.0 INTRODUCTION

Delfasco Forge Division (Delfasco) is currently under the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP) Agreement for the release investigation at the former Delfasco Forge facility at 114 Northeast 28th Street, Grand Prairie, Texas (VCP No. 1571). Groundwater in this area is affected by primarily trichloroethylene (TCE) and its daughter products. The estimated lateral extent of the affected groundwater, as determined by results from investigation activities to date, is illustrated on Figure 1.1 and in greater detail on Figure 1.2. A groundwater summary table is included in Table 3.3. An Affected Property Map (Figure 1.3) is included in the report illustrating the location of properties affected by the groundwater plume in the vicinity of the former Delfasco Forge facility and numbers have been assigned to the affected properties which correspond to the Affected Property Table (Table 3.1).

EnSafe, on behalf of Delfasco, has made frequent correspondence to TCEQ regarding investigation activities conducted at the former Delfasco facility. Included in Appendix A, are address labels to property owners of the identified receptor locations. These property owners have already been contacted by the TCEQ. EnSafe provided the water well property owner information in an email dated March 24, 2006.

This *Drinking Water Survey Report* has been written to satisfy TCEQ's request, and identifies and evaluates drinking water wells which may be affected or potentially affected by affected groundwater surrounding the former Delfasco Forge Facility. The *Preparation of a Drinking Water Survey Report*, provided by TCEQ (Appendix B), was strictly followed and the required information is contained in this report.

N

3309708

3309707

PW15

PW14

PW11

3309702

PW13

PW06

3309703

PW12

PW05

PW04

PW10

PW03

PW01

PW02

PW09

PW08

PW16

PW07

3317105

3317106

3317204

3317103

3317203

3317202

3317104

0.25 0 0.25 0.5 Miles

- State Registered Water Well
- 1/4 and 1/2 Mile Search Radii
- (W) Private Water Well Confirmed
- Property with Reported Water Well
- PCLE Zone (TCE 5 ppb)
- Proposed MSD Boundary
- Stream
- Surface Water Body

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FIGURE 1.1 - RECEPTOR SURVEY MAP
FORMER DELFASCO FORGE FACILITY
114 N.E. 28TH STREET
GRAND PRAIRIE, TEXAS

BY: ABARTOS	DWG NAME: AFFPROPMAP	DATE: 8/04/2006

0000000000001321

(b) (6)

[redacted]

N

Monitor Wells Installed in May 2006
Private Water Wells
Temporary Monitor Well
Monitor Well
State Registered Water Well
Proposed MSD Boundary

Delfasco Forge Property Boundary
PCLE Zone

2006 TCE Concentration Contours
1 to 10 ppb
20 to 100 ppb
200 to 1000 ppb
2000 to 10,000 ppb

400 0 400 800 Feet

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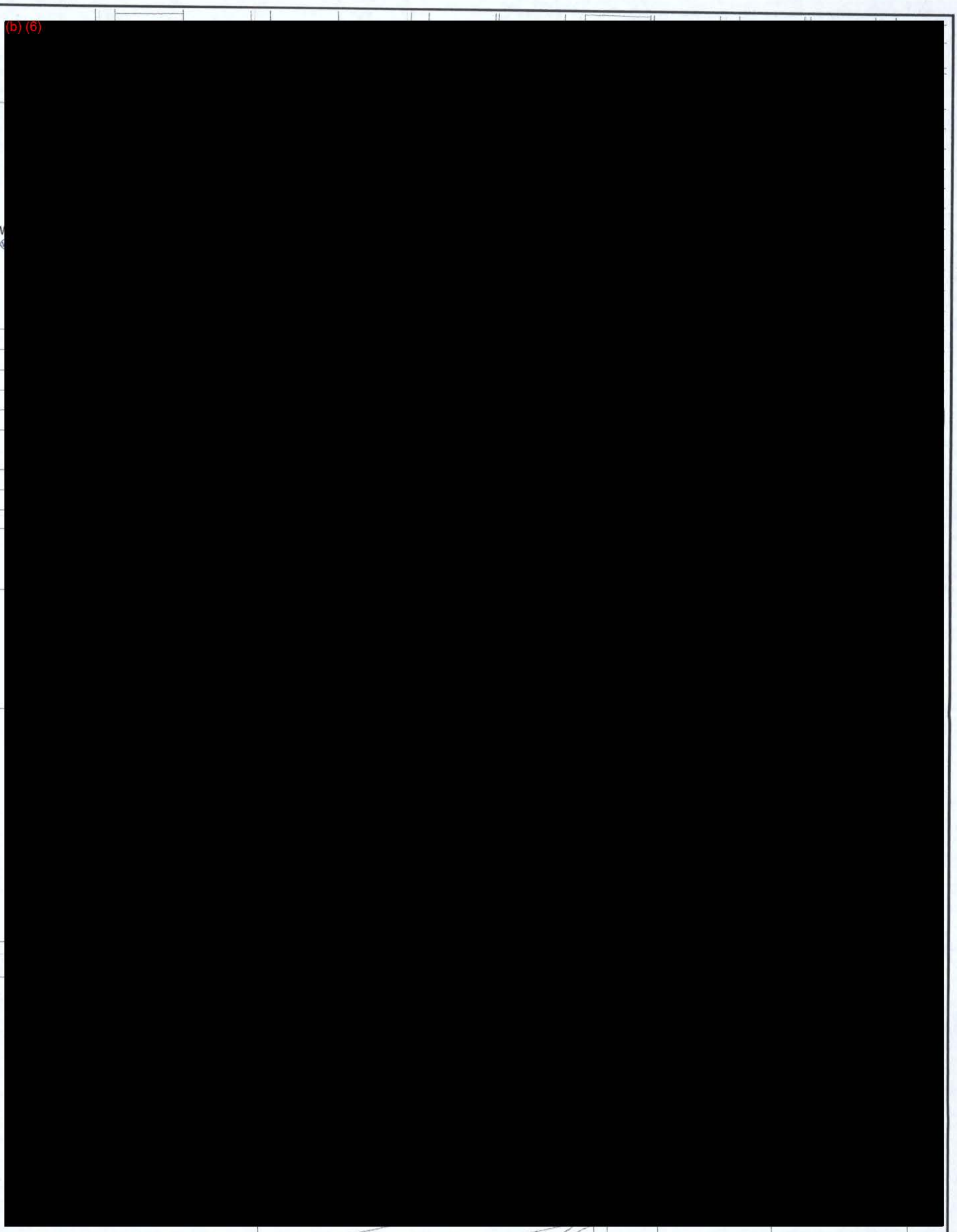
FIGURE 1.2 - TCE PCLE ZONE MAP
FORMER DELFASCO FORGE FACILITY
114 N.E. 28TH STREET
GRAND PRAIRIE, TEXAS

BY: A. BARTOS	DATE: 8/01/2006	DWG: Fig 2 - MSD BNDRY

0000000000001322

(b) (6)



300 0 300 600 Feet

- Proposed MSD Boundary
- PCLE Zone
- Monitor Well
- Private Water Well
- Monitor Wells installed in 2006
- Affected Property

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FIGURE 1.3 - AFFECTED PROPERTY MAP
FORMER DELFASCO FORGE FACILITY
114 N.E. 28TH STREET
GRAND PRAIRIE, TEXAS

BY: ABARTOS	DWG NAME: AFFPROPMAP	DATE: 8/04/2006

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2.0 SITE AND VICINITY CHARACTERISTICS

2.1 Location and Setting

The former Delfasco Forge facility is located at 114 Northeast 28th Street, Grand Prairie, Dallas County, Texas (32.7503 north latitude, 96.9629 west longitude). The 1.1-acre facility is located in a commercial/industrial area, with nearby residential properties to the north, east and west.

According to a Phase I Environmental Site Assessment (ESA) conducted by Environmental Consultant Services, in May 2001, the facility was first developed in the 1950s and operated as a steel forge. Delfasco acquired the property in 1980 and continued forge operations during their tenure at the facility. In 1998, Delfasco vacated the facility and all onsite operations ceased at that time.

2.2 Investigation Area

As required by the *Preparations of a Drinking Water Survey Report*, a local drinking water source search and a water well search were conducted in the boundary of the affected groundwater plume and within 0.25-miles and 0.5-miles of the outer edge of the plume, respectively. The estimated aerial extent of the groundwater plume, determined by subsurface investigation results gathered to date, and search radii are illustrated on the Receptor Survey Map (see Figure 1.2).

2.3 Topographical and Geological Information

Topographical information for the site and area was obtained from a review of the USGS 7.5-minute series topographical map, Irving, Texas quadrangle (1978, revised 1981, Figure 2.1). Geological information was obtained from the Bureau of Economic Geology (*Geologic Atlas of Texas, Dallas Sheet, 1972*). Additional soil information was obtained from the United States Department of Agriculture (USDA) Soil Conservation Service *Soil Survey of Dallas County, 1975*.

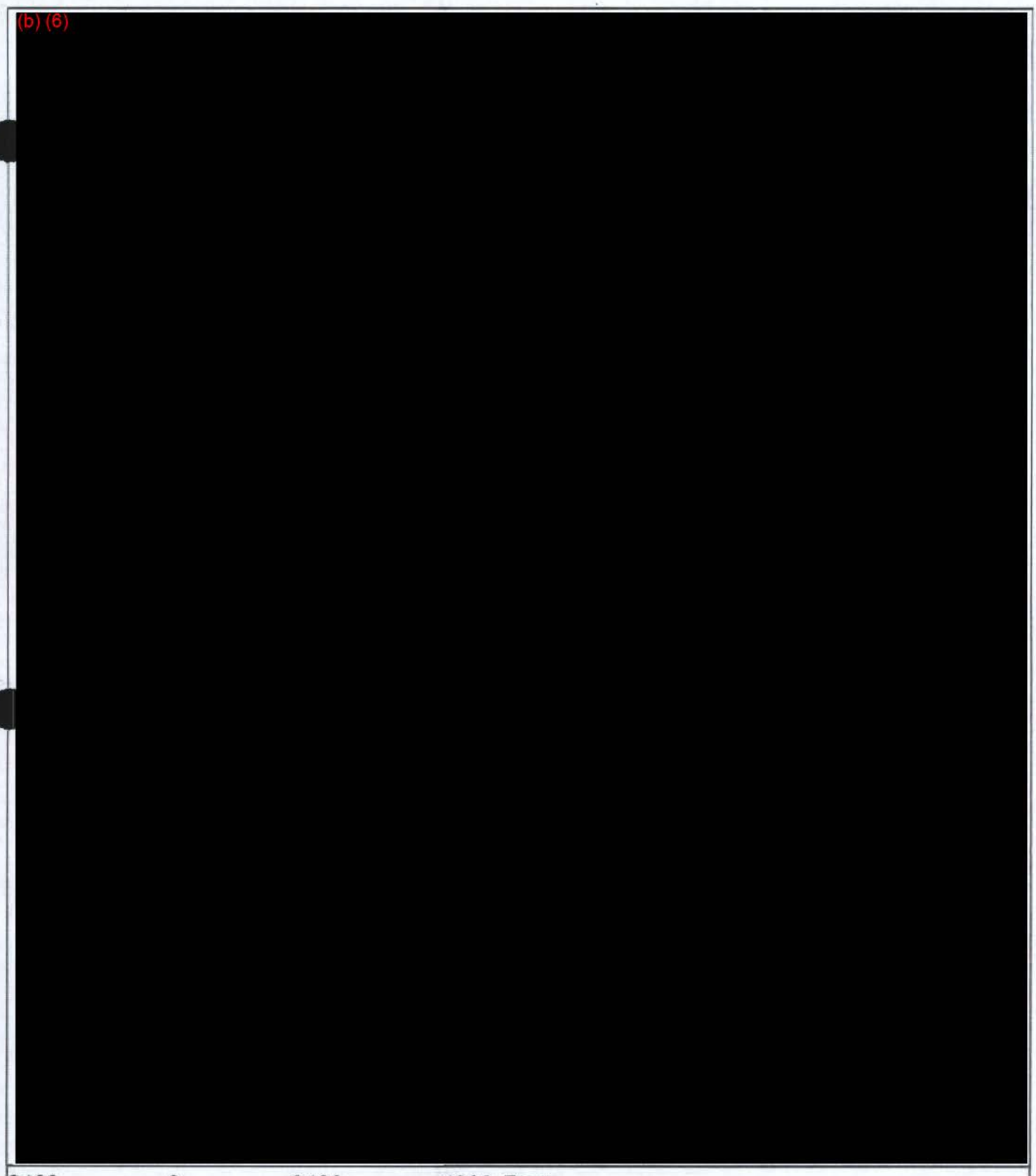
Topography:

The site is generally flat and gently slopes to the southeast. The site is approximately 495 feet above mean sea level (amsl) and is approximately one mile north of Mountain Creek Lake.

Geological Information:

The soils in the area are of the Houston Black-Urban Land Complex. The Houston Black-Urban Land Complex is a gray to dark gray, deep, moderately well-drained clayey soil found on nearly level and gently sloping ground. These soils overlie the Quaternary fluvial terrace deposits of the Trinity River which consist of mixed gravel, sand, silt, and clay. The Trinity River terrace deposits are underlain by the Eagle Ford Shale Formation, which has been encountered at depths ranging from 27 to 73 feet bgs by EnSafe, with an average depth of 47 feet bgs. The Eagle Ford is a gray to dark gray calcareous shale unit of the Eagle Ford Group. Although the Eagle Ford Shale is reported to be 200 to 300 ft thick (Geologic Atlas of Texas, Dallas Sheet) in this area, the well driller report from the nearby City of Grand Prairie water well indicates that it is approximately 145 feet thick. The Eagle Ford Shale is a low permeability formation that forms an aquitard between the Quaternary terrace deposits and underlying sources of drinking water.

(b) (6)



2400 0 2400 4800 Feet

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Figure 2.1
USGS Topographic Map
Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

3.0 GROUNDWATER CONTAMINATION

3.1 Area Groundwater

Area groundwater is located in a shallow unconfined silty sand aquifer with maximum depths below ground surface (bgs) of approximately 75 feet. The contaminants of concern in the area are Trichloroethylene (TCE) and its daughter products, including total 1,2-Dichloroethylene; cis-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,2-Trichlorethane; Tetrachloroethylene; and Vinyl chloride. Based on analytical results, local hydrogeology, and the chemical and physical characteristics of TCE, the groundwater plume has an aerial extent of approximately 65 acres and is migrating in a generally east-northeast direction from the site. Analytical results from all monitoring and private wells within the groundwater plume are listed in Table 3-2.

3.2 Private Wells

In August 2004, EnSafe confirmed through door-to-door surveys or by telephone the existence and location of three private wells within the groundwater plume (PW01, PW02, and PW03). In March 2006, EnSafe confirmed through a second door-to-door survey and by telephone the existence and location of eight private wells and one City of Grand Prairie well within 0.25-mile radius of the groundwater plume (PW04, PW05, PW07, PW08, PW09, PW10, PW14, PW15, and PW17). Five additional wells were reported to exist, but could not be confirmed by EnSafe (PW06, PW11, PW12, PW13, and PW16). The Receptor Survey Map (Figure 1.1) shows the location of all water wells within the groundwater plume and 0.25-miles of the plume boundary. Water wells located within this area are also listed in Table 3-3.

3.3 Investigation Phase

Ongoing subsurface investigation activities are being conducted in the vicinity of the former Delfasco Forge facility. Twenty-five (25) permanent groundwater monitoring wells and eight (8) temporary monitor wells have been installed to date. The array of monitor wells defines the aerial extent of affected groundwater surrounding the former Delfasco Forge facility as illustrated in detail in Figure 1.2.

Tab
Affected Property Table
Former Delfasco Forge Facility - 114 NE 28th Street - Grand Prairie, Texas
August 2006

Property Number	Property Address		Residential/ Commercial	Taxpayer Name	Mailing Address	City	State	Zip Code	Business Name	Foundation Type	Special Zoning	Telephone	Water Well Status
(b) (6)	(b) (6)	ST	R	(b) (6)		GRAND PRAIRIE	TX	750504308		PB		(b) (6)	
		ST	R			GRAND PRAIRIE	TX	750504309		SL			
		ST	R			GRAND PRAIRIE	TX	750504308		PB			
		ST	R			GRAND PRAIRIE	TX	750504309		BL			
		ST	R			GRAND PRAIRIE	TX	750504308		PB			
		ST	R			GRAND PRAIRIE	TX	750504744		BL			
		ST	R			GRAND PRAIRIE	TX	750504308		PB			
		ST	R			CARROLLTON	TX	75010-4900		BL			
		ST	R			GRAND PRAIRIE	TX	750504306		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4307		SL			
		ST	R			DALLAS	TX	752223585		SL			
		ST	R			GRAND PRAIRIE	TX	750504306		PB			No answer to telephone calls placed on 8/23 & 8/24 Site visit on 8/25 with no answer note left on door 8/25/04 Site visit on 8/26/04 with no answer
		ST	R			GRAND PRAIRIE	TX	750504307		SL			
		ST	R			PHOENIX	AZ	850426311		PT			
		ST	R			GRAND PRAIRIE	TX	750512413		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4307		SL			
		ST	R			GRAND PRAIRIE	TX	750505510		PT			
		ST	R			GRAND PRAIRIE	TX	750504307		SL			
		ST	R			GRAND PRAIRIE	TX	750504306		PB			
		ST	R			GRAND PRAIRIE	TX	750504307		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		PB			
		ST	R			SANTA ANA	CA	92705-4934		PB			
		ST	R			GRAND PRAIRIE	TX	750504717		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		PB			
		ST	R			GRAND PRAIRIE	TX	750542095		SL			
		ST	R			GRAND PRAIRIE	TX	75050-4716		BL			
		ST	R			GRAND PRAIRIE	TX	750504717		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		PB			
		ST	R			GRAND PRAIRIE	TX	750504717		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		PB			
		ST	R			GRAND PRAIRIE	TX	750504717		PB			
		ST	R			GRAND PRAIRIE	TX	750504714		BL			
		ST	R			GRAND PRAIRIE	TX	750504715		PB			
		ST	R			GRAND PRAIRIE	TX	750504714		PB			
		ST	R			GRAND PRAIRIE	TX	750525806		PB			
		ST	R			GRAND PRAIRIE	TX	750504535					
		ST	R			GRAND PRAIRIE	TX	75050-4715		PB			
		ST	R			GRAND PRAIRIE	TX	750504714		PT			Left message 8/23 & 8/24 Mr (b) (6) returned the call evening of 8/24 and indicated that his wife had spoken to the City of G P and mistakenly told them they had a well He indicated that there was no well on their property
		ST	R			GRAND PRAIRIE	TX	75050-4715		PB			
		ST	R			GRAND PRAIRIE	TX	750504714		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4305		PB			
		ST	R			GRAND PRAIRIE	TX	750504714		PT			Door visit necessary on 8/25/04 Note left on door on 8/25/04 Met with (b) (6) on 8/26/04 and she indicated that she had told the City of G P the well was filled in when they purchased the home ~30 years ago No well currently exists onsite
		ST	R			GRANBURY	TX	760494323		PB			
		ST	R			GRAND PRAIRIE	TX	750504712		PB			
		ST	R			GRAND PRAIRIE	TX	750502217		PB			Schedule to sample 8/25/04 @ 1000 Well was dry @ 23 bgs on 8/25/04 Well ID PW01 No sample taken
		ST	R			GRAND PRAIRIE	TX	750502252		PB			
		ST	R			GRAND PRAIRIE	TX	750504713		PB			
		ST	R			KELLER	TX	76248-		BL			Sample 8/25/04 @ 1100 Owner reported the well is likely dry Sampled for VOCs on 8/24 sample ID DELGPW0201 Well TP = 28 35 DTW = 24 34
		ST	R			GRAND PRAIRIE	TX	75050-4713		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		SL			
		ST	R			GRAND PRAIRIE	TX	750504713		PB			
		ST	R			GRAND PRAIRIE	TX	750504716		PT			
		ST	R			GRAND PRAIRIE	TX	750504713	KEYSTONE CIRCUIT				
		ST	R			GRAND PRAIRIE	TX	750504324		PB			
		ST	R			GRAND PRAIRIE	TX	750504324		SL			
		ST	R			GRAND PRAIRIE	TX	750504324		PB			
		ST	R			GRAND PRAIRIE	TX	750504324		PB			
		ST	R			GRAND PRAIRIE	TX	750504324		PB			

00000000001328

Table 3 1
Affected Property Table
Former Delfasco Forge Facility 114 NE 28th Street - Grand Prairie Texas
August 2006

Property Number	Property Address		Residential/ Commercial	Taxpayer Name	Mailing Address	City	State	Zip Code	Business Name	Foundation Type	Special Zoning	Telephone	Water Well Status
(b) (6)	(b) (6)	ST	R	(b) (6)		GRAND PRAIRIE	TX	75050-5510		PB		(b) (6)	
		ST	R			GRAND PRAIRIE	TX	75050-6223		PB			
		ST	R			GRAND PRAIRIE	TX	750506223		SL			
		ST	R			GRAND PRAIRIE	TX	750506223		SL			
		ST	R			RVING	TX	750633462					
		ST	R			GRAND PRAIRIE	TX	750506223		PB			(b) (6) reported that City of G P did not contact her but that a water well existed prior to her ownership of the property but had long since been filled and no longer wa in existence
		ST	R			GRAND PRAIRIE	TX	750506221		SL			
		ST	R			GRAND PRAIRIE	TX	75050-6221		SL			
		ST	R			GRAND PRAIRIE	TX	750506221		SL			
		ST	R			GRAND PRAIRIE	TX	750506221		PB			
		ST	R			GRAND PRAIRIE	TX	750506221					
		ST	R			GRAND PRAIRIE	TX	750505510		SL			
		ST	R			VILMINGTON	DE	198500527	VACANT				
		BLVD	R			GRAND PRAIRIE	TX	75050-4746		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504746		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504746		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504743					
		BLVD	C			GRAND PRAIRIE	TX	750504743		PB			
		BLVD	R			GRAND PRAIRIE	TX	75050-4744		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504743		SL			
		BLVD	R			GRAND PRAIRIE	TX	750504744		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504530		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504744		SL			
		BLVD	R			GRAND PRAIRIE	TX	75050-		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504743		SL			
		BLVD	R			GRAND PRAIRIE	TX	75050-4744		PB			
		BLVD	R			GRAND PRAIRIE	TX	750530223		BL			
		BLVD	R			GRAND PRAIRIE	TX	750514162		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504741		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504741		PB			
		BLVD	R			RVING	TX	75061-8602		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504742		SL			
		BLVD	R			GRAND PRAIRIE	TX	750535143		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504741		PB			
		BLVD	R			GRAND PRAIRIE	TX	750504741		BL			
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	75050-4741		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504741		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504742		PB			
		BLVD	R			GRAND PRAIRIE	TX	750503749		BL			
		BLVD	R			GRAND PRAIRIE	TX	750504739		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	750503749					
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		SL			
		BLVD	R			GRAND PRAIRIE	TX	750504739		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		BL			
		BLVD	C			GRAND PRAIRIE	TX	750504739	200 MEYERS		C		
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		BL			
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	750535143		PB			
		BLVD	R			GRAND PRAIRIE	TX	75050-4757		PB			
		BLVD	C			GRAND PRAIRIE	TX	75050-4732	VACANT		C		
		ST	C			GRAND PRAIRIE	TX	750504727	CHURCH		SF-4		
		ST	R			GRAND PRAIRIE	TX	75050-4724		PB			
		ST	C			GRAND PRAIRIE	TX	750504725		SL			
		ST	R			GRAND PRAIRIE	TX	75050-4724		PB			
		ST	R			EDAR HILL	TX	751044937		PB			
		ST	R			GRAND PRAIRIE	TX	750504724		SL			
		ST	R			GRAND PRAIRIE	TX	75050-4725		PB			
		ST	C			GRAND PRAIRIE	TX	750504725	BOWLES MEMORIAL CHURCH		SF-4		
		ST	R			GRAND PRAIRIE	TX	750504724		BL			
		ST	C			GRAND PRAIRIE	TX	750504725	BOWLES MEMORIAL BAPT		SF-4		
		ST	C			GRAND PRAIRIE	TX	750504725	PARKING LOT		SF-4		
		ST	R			GRAND PRAIRIE	TX	750504722		PB			
		ST	R			GRAND PRAIRIE	TX	750504722		PB			
		ST	R			GRAND PRAIRIE	TX	750504723		PB			
		ST	R			ULESS	TX	76039-		BL			
		ST	R			GRAND PRAIRIE	TX	750504722		PB			
		ST	R			GRAND PRAIRIE	TX	750504723		PB			
		ST	R			GRAND PRAIRIE	TX	750504722		PB			
		ST	R			GRAND PRAIRIE	TX	750504722		PB			
		ST	R			ALLAS	TX	752291331		BL			
		ST	R			GRAND PRAIRIE	TX	75050-4720		PB			

00000000001329

Table 3 1
Affected Property Table
Former Delfasco Forge Facility- 114 NE 28th Street - Grand Prairie Texas
August 2006

Property Number	Property Address		Residential/ Commercial	Taxpayer Name	Mailing Address	City	State	Zip Code	Business Name	Foundation Type	Special Zoning	Telephone	Water Well Status
(b) (6)	(b) (6)	ST	R	(b) (6)		GRAND PRAIRIE	TX	750504723		FR		(b) (6)	Scheduled to sample 8/25/04 @ 0900 Well was dry at 26 7 bgs on 8/25/04 Well ID PW03 No sample was taken
		ST	R			GRAND PRAIRIE	TX	750504720		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4435		PB			
		ST	R			GRAND PRAIRIE	TX	750505510		PB			
		ST	R			GRAND PRAIRIE	TX	750504721		BL			
		ST	R			GRAND PRAIRIE	TX	75050-4720		PB			
		ST	R			GRAND PRAIRIE	TX	750504739		PB			
		ST	R			FAIRFAX	VA	220312833		PB			
		ST	R			GRAND PRAIRIE	TX	750504739		PB			
		ST	R			GRAND PRAIRIE	TX	750504720		PB			
		ST	R			GRAND PRAIRIE	TX	750504739					
		ST	R			GRAND PRAIRIE	TX	750504718		PB			
		ST	R			GRAND PRAIRIE	TX	750504739					
		ST	R			DALLAS	TX	752201811					
		ST	R			GRAND PRAIRIE	TX	750504739					
		ST	R			GRAND PRAIRIE	TX	750504757		BL			
		ST	R			MILWAUKEE	WI	53201-3155		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4705		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4706		PB			
		ST	R			GRAND PRAIRIE	TX	750504705		BL			
		ST	R			GRAND PRAIRIE	TX	750504706		PB			
		ST	R			IRVING	TX	750616402		PB			
		ST	R			GRAND PRAIRIE	TX	750522302		PB			
		ST	C			GRAND PRAIRIE	TX	750504725	VACANT		SF-4		
		ST	R			GRAND PRAIRIE	TX	750504704		PB			
		ST	R			GRAND PRAIRIE	TX	750504704		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4703		PB			
		ST	R			GRAND PRAIRIE	TX	750504703		PB			
		ST	R			GRAND PRAIRIE	TX	750504704		SL			
		ST	R			GRAND PRAIRIE	TX	75050-4704		PB			
		ST	R			GRAND PRAIRIE	TX	750504703		PB			
		ST	R			GRAND PRAIRIE	TX	750504704		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4703		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4429		PB			
		ST	R			CHANDLER	TX	757589664		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4702		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4701		PB			
		ST	R			GRAND PRAIRIE	TX	750505856		PB			
		ST	R			GRAND PRAIRIE	TX	750504702		PB			
		ST	R			GRAND PRAIRIE	TX	750504702		PB			
		ST	R			GRAND PRAIRIE	TX	750504702		PB			
		ST	R			GRAND PRAIRIE	TX	750504702		PB			
		ST	R			GRAND PRAIRIE	TX	750504511		PB			
		ST	R			GRAND PRAIRIE	TX	750504511		PB			
		ST	R			GRAND PRAIRIE	TX	750502204		PB			
		ST	R			GRAND PRAIRIE	TX	750504511		PB			
		ST	R			IRVING	TX	750605847		PB			
		ST	R							SL			
		ST	R			GRAND PRAIRIE	TX	750540459		PB			
		ST	R			GRAND PRAIRIE	TX	75050-4540		PB			
		ST	R			GRAND PRAIRIE	TX	750504540		PB			
		ST	R			GRAND PRAIRIE	TX	750504544		SL			
		ST	R			GRAND PRAIRIE	TX	750504544		SL			
		ST	R			GRAND PRAIRIE	TX	750504544		BL			
		ST	R			IRVING	TX	750606909		BL			
		ST	R			GRAND PRAIRIE	TX	75050-4545		PB			
		ST	R			GRAND PRAIRIE	TX	750504545		PB			
		ST	R			GRAND PRAIRIE	TX	750504545		PB			
		ST	R			GRAND PRAIRIE	TX	750504716					
		ST	R			GRAND PRAIRIE	TX	750504545		PB			
		ST	R			GRAND PRAIRIE	TX	750504545		PB			
		ST	C			GRAND PRAIRIE	TX	750504757	PHILIP SPECIALTY COMPANY		C		
		ST	C			GRAND PRAIRIE	TX	750507103	MP AUTO		C		
		ST	C			DALLAS	TX	752241439	QUEST AUTO SALES		C		
		ST	C			GRAND PRAIRIE	TX	750506215	BJ S UPHOLSTERY		C		
		ST	C			SALINAS	CA	93907-1228	AUSTIN AUTO BODY SALES		C		
		ST	C			MIDLOTHIAN	TX	760656183	PFL		C		
		ST	C			MIDLOTHIAN	TX	760656183	VACANT		C		
		ST	C			GRAND PRAIRIE	TX	750504732	T AND T AUTO		C		
		ST	D			GRAND PRAIRIE	TX	75050-4757	PHILIP SPECIALTY		D		
		ST	C			GRAND PRAIRIE	TX	750504732	VACANT		C		
		ST	C			DALLAS	TX	752184312	VACANT		C		
		ST	C			DALLAS	TX	752184312			C		

Foudation Type PB Pier and Beam SL - Concrete Slab BL Block PT - Post
Special Zoning C Commercial SF4 Single Family Dwelling

0000000000001330

Table 3.2 Analytical Data Table
Groundwater Data Summary Table (ug/L)
Former Delfasco Forge, Grand Prairie, Texas
VCP # 1571

SAMPLE LOCATION	MW-1		MW-2		MW-3		MW-4			MW-5		MW-6		MW-6A	MW-7		MW-8		MW-9
SAMPLE ID	DELWMW0101	DELGMW0102	DELWMW0201	DELGMW0202	DELWMW0301	DELGMW0302	DELWMW0401	DELHMW0401	DELGMW0402	DELWMW0501	DELGMW0502	DELGME0601	DELGMW0602	DELGMW0601	DELGMW0701	DELGMW0702	DELGMW0801	DELGMW0802	DELGMW0901
SAMPLE DATE	25-Sep-03	21-Nov-05	25-Sep-03	21-Nov-05	25-Sep-03	22-Nov-05	25-Sep-03	25-Sep-03	22-Nov-05	25-Sep-03	21-Nov-05	17-Nov-04	23-Nov-05	2-Nov-04	2-Nov-04	21-Nov-05	2-Nov-04	22-Nov-05	23-Nov-05
VOA																			
1,1,2-Trichloroethane	(0.333)	(0.37)	(0.333)	(0.37)	(33.3)	2.3	(3.33)	(3.33)	(0.37)	(16.7)	(9.3)	(0.22)	(0.37)	(0.22)	(0.22)	(0.37)	(0.22)	(0.37)	(0.37)
1,1-Dichloroethane	(0.122)	(0.56)	(0.122)	(0.56)	(12.2)	4.2	(1.22)	(1.22)	(5.6)	(6.1)	(14)	(0.36)	(0.56)	(0.36)	(0.36)	(0.56)	(0.36)	(0.56)	(0.56)
1,1-Dichloroethene	(0.357)	(0.93)	(0.357)	(0.93)	(35.7)	(93)	(3.57)	(3.57)	(9.3)	(17.9)	(23)	(0.36)	(0.93)	(0.36)	(0.36)	(0.93)	(0.36)	(0.93)	(1.9)
1,2-Dichloroethane	(0.28)	(0.28)	(0.28)	(0.28)	(27.70)	(0.28)	(2.77)	(2.77)	(0.28)	(5.80)	(0.28)	(0.26)	(0.28)	(0.26)	(0.26)	(0.28)	(0.26)	(0.28)	(0.28)
1,2-Dichloroethene (Tot)	(0.343)	NS	24.7	NS	307	NS	1400	1120	NS	187	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone (MEK)	(0.641)	(0.72)	(0.641)	(0.72)	(64.1)	13000	(6.41)	(6.41)	(0.72)	(32.1)	(0.72)	(1.3)	(0.72)	(1.3)	(1.3)	(0.72)	(1.3)	14	(0.72)
4-Methyl-2-pentanone	NS	(0.45)	NS	(0.45)	NS	86	NS	NS	(0.45)	NS	(0.45)	(0.65)	(0.45)	(0.65)	(0.65)	(0.45)	(0.65)	(0.45)	(0.9)
Acetone	(2.36)	(7.3)	(2.36)	(7.3)	(236)	(730)	(23.6)	(23.6)	(73)	(118)	(7.3)	(5)	(7.3)	(5)	(5)	(7.3)	(5)	(7.3)	(7.3)
Benzene	(0.1)	(0.54)	(0.1)	(0.54)	(10)	4.4	(1)	(1)	1.6	(5)	(0.54)	(0.36)	(0.54)	(0.36)	(0.36)	(0.54)	(0.36)	(0.54)	(1.1)
Bromoform	(0.14)	(0.36)	(0.14)	(0.36)	(14.00)	(0.36)	(1.40)	(1.40)	(0.36)	(7.00)	(0.36)	(0.33)	(0.36)	(0.33)	(0.33)	(0.36)	(0.33)	(0.36)	(0.36)
Carbon disulfide	(0.18)	1.2	(0.18)	(0.75)	(18)	(75)	(1.8)	(1.8)	(7.5)	(9)	(19)	(0.66)	(0.75)	(0.66)	(0.66)	(0.75)	(0.66)	(0.75)	(0.75)
Chloroform	(0.14)	(0.52)	(1.48)	(0.52)	(105)	(52)	(10.2)	(11)	(0.52)	(62.8)	(13)	(0.37)	(0.52)	(0.37)	(0.37)	(0.52)	(0.37)	(0.52)	(0.52)
cis-1,2-Dichloroethene	(0.151)	8.1	24.7	0.83	307	950	1400	1120	1400	187	210	(0.38)	(0.55)	(0.38)	(0.38)	(0.55)	(0.38)	(0.55)	5
Ethylbenzene	(0.312)	(0.62)	(0.312)	(0.62)	(31.2)	(0.62)	(3.12)	(3.12)	(0.62)	(15.6)	(0.62)	(0.34)	(0.62)	(0.34)	(0.34)	(0.62)	(0.34)	(0.62)	(0.62)
Methylene chloride	(2.65)	(0.44)	(2.97)	(0.44)	(184)	(44)	(23.2)	(26.3)	(0.44)	(30.7)	(0.44)	(0.64)	(0.44)	(0.64)	(0.64)	(0.44)	(0.64)	(0.44)	(0.44)
tert-Butyl methyl ether	(0.122)	NS	(0.122)	NS	(12.2)	NS	(1.22)	(1.22)	NS	(6.1)	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	(0.269)	(0.75)	(0.269)	(0.75)	(26.9)	23	(2.69)	(2.69)	(7.5)	58.8	34	0.43	(0.75)	0.59	(0.35)	(0.75)	(0.35)	(0.75)	3.8
Toluene	(0.152)	(0.62)	(0.152)	(0.62)	(15.2)	0.63	(1.52)	(1.52)	(0.62)	(7.6)	(16)	(0.54)	(0.62)	(0.54)	(0.54)	(0.62)	(0.54)	(0.62)	(0.62)
trans-1,2-Dichloroethene	(0.192)	(0.8)	(0.192)	(0.8)	(19.2)	(80)	(1.92)	(1.92)	10	(9.6)	(20)	(0.4)	(0.8)	(0.4)	(0.4)	(0.8)	(0.4)	(0.8)	(1.6)
Trichloroethene	4.25	76	63.1	2.7	3620	8800	156	114	35	4700	2300	(0.37)	(0.71)	310	(0.37)	2.2	0.93	732	240
Vinyl chloride	(0.177)	(0.92)	(0.177)	(0.92)	(17.7)	69	(1.77)	(1.77)	69	(8.85)	(23)	(0.56)	(0.92)	(0.56)	(0.56)	(0.92)	(0.56)	(0.92)	(1.8)
TPH																			
TPH-C6-C12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TPH- Total C6-C35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

SAMPLE LOCATION	MW-10	MW-12	MW-13	MW-14	MW-15	MW-16	MW-17	MW-18	MW-19	MW-20		MW-21	MW-22	MW-23	MW-24	MW-25
SAMPLE ID	DELGMW1001	DELGMW1201	DELGMW1301	DELGMW1401	DELGMW1501	DELGMW1601	DELGMW1701	DELGMW1801	DELGMW1901	DELGMW2001	DELHMW2001	DELGMW2101	DELGMW2201	DELGMW2301	DELGMW2401	DELGMW2501
SAMPLE DATE	22-Nov-05	21-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	23-Nov-05	25-May-06	25-May-06	25-May-06	25-May-06	25-May-06	25-May-06	15-Jun-06	21-Mar-06	25-May-06	25-May-06
VOA																
1,1,2-Trichloroethane	(0.37)	(9.3)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)	(0.37)
1,1-Dichloroethane	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	1.2	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)	(0.56)
1,1-Dichloroethene	(0.93)	72	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)	(0.93)
1,2-Dichloroethane	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	2.10	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)	(0.28)
1,2-Dichloroethene (Tot)	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2-Butanone (MEK)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)	(0.72)
4-Methyl-2-pentanone	(0.45)	(11)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)	(0.45)
Acetone	(7.3)	(180)	(7.3)	(7.3)	(7.3)	(7.3)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)	(7.30)
Benzene	(0.54)	(14)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)	(0.54)
Bromoform	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	(0.36)	0.59 J	0.59 J	(0.36)	(0.36)	(0.36)
Carbon disulfide	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)
Chloroform	(0.52)	(13)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)	(0.52)
cis-1,2-Dichloroethene	1.1	17	(0.55)	(0.55)	(0.55)	3.3	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)	(0.55)
Ethylbenzene	(0.62)	(16)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)
Methylene chloride	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)	(0.44)
tert-Butyl methyl ether	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Tetrachloroethene	(0.75)	2.5	(0.75)	(0.75)	(0.75)	0.92	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	(0.75)	1.20	(0.75)	(0.75)	(0.75)
Toluene	(0.62)	(16)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)	(0.62)
trans-1,2-Dichloroethene	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)	(0.80)
Trichloroethene	340	1900	(0.71)	61	(0.71)	0.89	(0.71)	(0.71)	(0.71)	2.40	2.50	(0.71)	(0.71)	1630	4.30	5.50
Vinyl chloride	(0.92)	(23)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)	(0.92)
TPH																
TPH-C6-C12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TPH- Total C6-C35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

NOTES:

1 - Numbers in parentheses indicate the quantification limits, not the detection limits. If the analyte concentration is in parentheses, the analyte was not detected in the sample.

2 - "NS" means the sample was not tested for that analyte

3 - "NA" means Not Applicable.

4 - "R" indicates a result rejected in data validation.

5- Shaded values indicate detections exceeding the lower of the Industrial/Commercial Tier 1 PCLs.

6 - Bolded values indicate detections exceeding the lower of the Residential Tier 1 PCLs.

Groundwater Data Summary Table (ug/L)
Former Del Fasco Forge, Grand Prairie, Texas
VCP # 1571

SAMPLE LOCATION	PW-2	SB-3	SB-4	SB-6	SB-7A	SB-8A	SB-9A	SB-10	SB-11	TIER 1 PCLs		TIER 1 PCLs	
SAMPLE ID	DELGPW0201	DELGSB0301	DELGSB0401	DELGSB0601	DELGSB7A01	DELGSB8A01	DELGSB9A01	DELGSB1001	DELGSB1101	I/C $^{GW}GW_{Ing}$	I/C $^{AM}GW_{Inh-V}$	R $^{GW}GW_{Ing}$	R $^{Air}GW_{Inh-V}$
SAMPLE DATE	25-Sep-04	4-Sep-02	4-Sep-02	25-Mar-04	6-Apr-04	6-Apr-04	6-Apr-04	26-Mar-04	14-May-04	—	0.5 acre	—	0.5 acre
VOA													
1,1,2-Trichloroethane	(0.22)	10	0.16	(0.333)	(0.131)	(0.655)	(0.131)	(0.333)	(32.8)	5	134,475	5	80,044
1,1-Dichloroethane	(0.36)	38	(1)	(0.122)	(0.252)	(1.26)	(0.252)	(0.122)	(63)	7,300	10,044,267	2,444	7,174,477
1,1-Dichloroethene	0.37	93	1.5	(0.357)	(0.229)	(1.15)	(0.229)	(0.357)	(57.3)	7	1,371,983	7	979,988
1,2-Dichlorethane	(0.26)	(50)	(1)	(0.122)	(0.205)	(1.030)	(0.205)	(0.122)	(51.3)	5.00	55,000	5	33,000
1,2-Dichloroethene (Tot)	NS	NS	NS	8.55	(0.302)	(1.51)	(0.302)	1.23	1050	70	22,700,000	70	16,200,000
2-Butanone (MEK)	(1.3)	(500)	(10)	(0.641)	(0.429)	(2.15)	(0.429)	3.75	(107)	43,800	1,000,000,000	14,665	1,000,000,000
4-Methyl-2-pentanone	(0.65)	(500)	(10)	NS	NS	NS	NS	NS	NS	5,840	942,637,279	1,955	673,312,342
Acetone	(5)	(1200)	(25)	(1.42)	(1.42)	(7.1)	(1.42)	(1.42)	(355)	65,700	354,532,668	21,998	253,237,620
Benzene	(0.36)	42	0.22	(0.225)	(0.225)	(1.13)	(0.225)	(0.225)	(56.3)	5	85,238	5	50,737
Bromoform	(0.33)	(50)	(1)	(0.140)	(0.216)	(1.080)	(0.216)	(0.140)	(54.0)	260	8,600,000	120	5,100,000
Carbon disulfide	(0.66)	(50)	(1)	(0.18)	(0.098)	(0.49)	(0.098)	(0.18)	(24.5)	7,300	6,816,255	2,444	4,868,754
Chloroform	(0.37)	11	0.25	(0.14)	(0.194)	(0.97)	(0.194)	(0.14)	(48.5)	730	33,461	244	19,917
cis-1,2-Dichloroethene	0.75	9300	34	8.55	(0.163)	(0.815)	(0.163)	1.23	1050	70	22,737,924	70	16,241,374
Ethylbenzene	(0.34)	(50)	0.21	(0.312)	(0.227)	(1.14)	(0.227)	(0.312)	(56.8)	700	21,908,106	700	15,648,647
Methylene chloride	(0.64)	(250)	0.28	(0.767)	(1.9)	(2.23)	(2.06)	(0.85)	(111)	5	2,136,735	5	1,271,866
tert-Butyl methyl ether	NS	NS	NS	(0.122)	(0.179)	(0.895)	(0.179)	36.6	(44.8)	730	6,785,229	244	4,038,827
Tetrachloroethene	(0.35)	270	1	(0.269)	1.15	(1.14)	(0.227)	2.77	(56.8)	5	548,634	5	326,568
Toluene	(0.54)	(50)	0.49	(0.152)	(0.213)	(1.07)	(0.213)	(0.152)	(53.3)	1,000	8,685,476	1,000	6,203,911
trans-1,2-Dichloroethene	(0.4)	38	(1)	(0.192)	(0.139)	(0.695)	(0.139)	(0.192)	(34.8)	100	14,215,840	100	10,154,172
Trichloroethene	9	40000	180	28.9	125	5917	(0.27)	475	27500	5	272,769	5	162,362
Vinyl chloride	(0.56)	31	(1)	(0.177)	(0.089)	(0.445)	(0.089)	(0.177)	(22.3)	2	6,108	2	3,635
TPH													
TPH-C6-C12	NS	7300	(5000)	NS	NS	NS	NS	NS	NS	2,900	29,535	980	21,096
TPH- Total C6-C35	NS	8000	(5000)	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA

1 - Numbers in parentheses indicate the quantification limits, not the detection limits. If the analyte concentration is in parentheses,

2 - "NS" means the sample was not tested for that analyte

3 - "NA" means Not Applicable.

5- Shaded values indicate detections exceeding the lower of the Industrial/Commercial Tier 1 PCLs.

6 - Bolded values indicate detections exceeding the lower of the Residential Tier 1 PCLs.

Table 3.3
Water Well Survey
Aug-06

Map ID Number	State Well ID Number	Approximate distance from known extent of groundwater contamination (feet)	Physical Address of Well	Latitude	Longitude	Well Type	Total Depth (feet)	Screened Interval (feet)	Sealed Interval (feet)	Private Drinking Water Well?	Affected or Potentially Affected?	Well Owner Name, Mailing Address	Well User Name, Mailing Address
(b) (6)	N/A	0	(b) (6)			PRV	23	Unknown	Unknown	Not in use	Yes	(b) (6)	
	N/A	0				PRV	28 35	Unknown	Unknown	Not in use	Yes		
	N/A	0				PRV	26 7	Unknown	Unknown	Not in use	Yes		
	N/A	700				PRV	Unknown	Unknown	Unknown	Not in use	No		
	N/A	800				PRV	30 - 40	Unknown	Unknown	Irrigation	No		
	N/A	1000				PRV	Unknown	Unknown	Unknown	Unknown	No		
	N/A	500				PRV	33 7	Unknown	Unknown	Not in use	No		
	N/A	800				PRV	15 21	Unknown	Unknown	Not in use	No		
	N/A	600				PRV	Unknown	Unknown	Unknown	Not in use	No		
	N/A	1200				PRV	Unknown	Unknown	Unknown	Unknown	No		
	N/A	1200				PRV	Unknown	Unknown	Unknown	Unknown	No		
	N/A	1400				PRV	Unknown	Unknown	Unknown	Unknown	No		
	N/A	1500				PRV	10 59	Unknown	Unknown	Not in use	No		

Water Well Survey
Aug-06

Map ID Number	State Well ID Number	Approximate distance from known extent of groundwater contamination (feet)	Physical Address of Well	Latitude	Longitude	Well Type	Total Depth (feet)	Screened Interval (feet)	Sealed Interval (feet)	Private Drinking Water Well?	Affected or Potentially Affected?	Well Owner Name, Mailing Address	Well User Name, Mailing Address
(b) (6)	NA	1600	(b) (6)			PRV	40 6	Unknown	Unknown	Not in use	No	(b) (6)	
	NA	1800				PRV	Unknown	Unknown	Unknown	Unknown	No		
	NA	1500				PRV	Unknown	Unknown	Unknown	Not in use	No		
3309702	3309702	1400	NE 31st St and Bowles St	Unknown	Unknown	P	460	Unknown	Unknown	Plugged and Abandoned	No	City of Grand Prairie 218 S Center St Grand Prairie, TX 75051	N/A
3309703	3309703	1200	NE 28th St and Graham St	Unknown	Unknown	P	2163	2006 - 2163	0 - 2006	No	No	City of Grand Prairie 218 S Center St Grand Prairie, TX 75051	City of Grand Prairie population
3317105	3317105	1800	Hensley Field	Unknown	Unknown	P	413	258 - 405	0 - 258	Plugged and Abandoned	No	U S Air Force Hensley Field #1 Grand Prairie, TX 75050	N/A
3317106	3317106	1800	Hensley Field	Unknown	Unknown	P	417	269 - 315	0 - 269, 315 - 417	Plugged and Abandoned	No	U S Air Force Hensley Field #1 Grand Prairie, TX 75050	N/A

4.0 AFFECTED OR POTENTIALLY AFFECTED WATER WELLS

4.1 Local Drinking Water Source and Field Survey of Water Wells

In order to document the availability and use of a PWS for the properties within and surrounding the affected groundwater plume, a PWS search was conducted for areas within the boundary of the affected groundwater plume and within 0.25-miles from the outer edge of the plume.

The local PWS is supplied by the City of Grand Prairie, which supplied EnSafe with a PWS coverage map for the vicinity of the former Delfasco facility. The PWS coverage map can be found in Appendix C. All properties within the boundary of the affected groundwater plume, and within 0.25-miles from the outer edge of the plume, are supplied by the City of Grand Prairie PWS. On the coverage map, all properties supplied by the local PWS are shown in gray and the water meters for each property are indicated by a red dash.

In August 2004, EnSafe, in conjunction with the City of Grand Prairie, conducted a door-to-door survey of private water wells within the estimated extent of the groundwater plume coverage area. Seven properties having private water wells were identified in this survey. Additional investigation activities revealed the extent of the plume to be larger than previously believed. In February 2006, EnSafe conducted a second door-to-door private water well survey of properties within 0.25-miles from the outer edge of the revised plume area, to determine the presence of private wells in the area. Sixteen properties having private water wells were identified in this survey. Properties within the estimated groundwater plume coverage area are listed in Table 3-1. Table 3-1 also includes the sixteen properties identified in the private water well survey.

A records search was conducted to locate all recorded water wells within the TCEQ-prescribed coverage area of 0.5-miles from the outer boundary of the estimated groundwater plume. Review of the Texas Water Development Board's Interactive Mapper and Database identified four water wells in the water well record search. Three of the four water wells have been plugged and abandoned. One active well is reportedly used only as an emergency PWS well by the City of Grand Prairie (State well

ID number 3309703). The four identified water wells are on Table 3-2, which lists well locations, owner information, and status. The logs for all four wells are included in Appendix D. Appendix E contains EnSafe's soil boring and monitor well logs for drilling activities conducted as part of the investigation activities at the Former Delfasco Forge facility illustrating general subsurface conditions in the immediate area. The Receptor Survey Map (Figure 1.1) shows the water wells and their associated State well ID numbers.

In August 2004, EnSafe confirmed, by telephone and in person, the existence and/or locations of the seven identified private wells. Only three (PW01, PW02, PW03; see Figure 2.1) of the seven reported wells were found to be in existence. The other four initially-reported wells turned out to be inaccurate information or the well had been properly plugged and abandoned. According to residents at the three (PW01, PW02, PW03) properties, these wells were historically used for irrigation purposes only, and none of these wells has been used in the last 15 to 20 years. Two of the private wells (PW01 and PW03) were dry during the site visit in August 2004. Private well PW02 contained groundwater during the August 2004 investigation and was sampled for VOCs.

In March 2006, EnSafe confirmed in person the existence and/or locations of the sixteen identified private wells. Only nine (PW04, PW05, PW07, PW08, PW09, PW10, PW14, PW15, and PW17; see Figure 1.1) of the sixteen reported wells were found to be in existence. The existence and location of five wells (PW06, PW11, PW12, PW13, and PW16) have not yet been confirmed in person by EnSafe. The other two initially-reported wells were based on inaccurate information or the well had been properly plugged and abandoned. All identified private wells within the plume area and within 0.25-miles of the plume are listed in Table 3-2, which provides information regarding well locations, owner information, and status.

4.2 Affected or Potentially Affected Water Wells

Private wells, PW01 and PW03, due to their location within the affected groundwater plume, have the potential to be impacted. However, these wells have been dry during site visits by EnSafe. Private well PW02 which lies within the affected groundwater

plume was sampled in August 2004 and was found to have low concentrations of TCE, slightly above the PCLs. All other private wells initially listed as affected or potentially affected in the table and figure sent to TCEQ in March 2006 have been determined to be outside the affected groundwater plume (As defined with the installation of monitor wells MW19, MW20, MW21, MW22, MW23, MW24 and MW25) and data suggests that they are not likely to be impacted in the future. None of these wells were reported in use.

5.0 CONCLUSIONS

On behalf of Delfasco, Inc., EnSafe has performed the drinking water survey and has identified twelve wells within the prescribed search radii. Eleven private wells are located at residential properties and one public supply well (City of Grand Prairie, State Well ID No. 3309703) is located northwest of the affected properties. The existence and/or location of five reported wells have not been confirmed by EnSafe. One well (PW05) is currently connected and used for lawn irrigation. PW05 is located upgradient to and outside of the affected groundwater plume and is not affected or potentially affected. Other residents who own the private wells indicated that their wells were not in use and that the well pumping apparatus was inoperable or not present. Furthermore, the residents indicated that these wells historically had only been used for irrigation purposes and had not been used for at least 15 to 20 years. One of the wells (PW02) contained groundwater and was sampled by EnSafe in August 2004. TCE and its daughter products were detected in the well at low concentrations and the resident was notified of the results and EnSafe recommended that they not use water from this well.

A local PWS search was conducted and all properties within the specified search radii are supplied potable water by the City of Grand Prairie PWS. The public supply well located northwest of the former Delfasco facility is still active; however, it only provides water for emergency public water supply to the City of Grand Prairie. The well is steel-cased to its depth of 2163 bgs and is screened from 2,006 to 2,163 feet bgs. Due to the depth of the well, casing materials, and distance from the affected groundwater plume, it is unlikely that the groundwater in this well has been affected.

EnSafe adhered to the Minimum Requirements of the Preparation of a Drinking Water Survey Report as provided in this report. The list of residents within the estimate groundwater plume is listed in Table 3-1.

Although groundwater in the vicinity of the former Delfasco facility is affected with TCE, receptor sites are limited and their use has been evaluated and determined to be low risk due to the condition and construction (PW04 – PW09 and PW11 – PW17), and

distance from the plume (City of Grand Prairie, State Well ID No. 3309703, PW10). Although private wells PW01, PW02 and PW03 lie within the affected groundwater plume, they are not in use and currently not plumbed and are inoperable. PW01 and PW03 were dry during site visits by EnSafe. EnSafe will continue to monitor the receptors presented in this report throughout the subsurface investigation to determine changes in their status and to ensure they are not being utilized.

6.0 REFERENCES

- *Preparation of a Drinking Water Survey Report*, Texas Commission on Environmental Quality Remediation Division. RG-428, November 2005.

- *Instructions for Collecting and Submitting Site and Private Water Well Location Information*, Texas Commission on Environmental Quality Remediation Division. October 28, 2005.

- Texas Water Development Board Well Database, Interactive Mapper and Database, *http://www.twdb.state.tx.us/mapping/interactive.asp*

- TCEQ Response to *Amended Voluntary Cleanup Program (VCP) Agreement and Project Update, Former Delfasco Forge Facility, 114 Northeast 28th Street, Grand Prairie, Dallas County, TX; Voluntary Cleanup Program (VCP) No. 1571.* Texas Commission on Environmental Quality, February 17, 2005.

- *Phase I Environmental Site Assessment - Delfasco Forge Facility, 114 Northeast 28th Street, Grand Prairie, Dallas County, TX*, Environmental Consultant Services. May 2001.

- *Receptor Survey Report - Delfasco Forge Facility, 114 Northeast 28th Street, Grand Prairie, Dallas County, TX*, EnSafe Incorporated. March 2005.

- *Geologic Atlas of Texas – Dallas Sheet,* Bureau of Economic Geology, University of Texas at Austin, 1972.

- *Soil Survey of Dallas County,* United States Department of Agriculture, Soil Conservation Service, 1975.

DRINKING WATER SURVEY REPORT

Conducted on

Former Delfasco Forge Facility
VCP No. 1571
114 Northeast 28th Street
Grand Prairie, Texas

for

Delfasco Forge

Issue Date: September 25, 2006

Jay Spence
Registered Professional Geologist

Signature

Kerry Hill, PG
Registered Professional Geologist

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Appendix A
Mailing Labels


(b) (6)

Appendix B

TCEQ Minimum Requirements for a Drinking Water Survey Report

TCEQ REGULATORY GUIDANCE
Remediation Division
RG-428 - November 2005

Preparation of a Drinking Water Survey Report

Purpose

This document outlines the minimum procedures necessary for the regulated community to prepare and submit a Drinking Water Survey Report to the Remediation Division (RD) of the Texas Commission on Environmental Quality (TCEQ). The Drinking Water Survey Report will provide information on water wells and sources of drinking water in the area near groundwater contamination. Submit the Drinking Water Survey Report when initially reporting a case of groundwater contamination to the RD, and at any other time when requested by the RD.

The RD will use the report to comply with Texas Water Code (TWC) §26.408. TWC §26.408 requires the TCEQ, within 30 days of the date the TCEQ receives notice or otherwise becomes aware of a case of groundwater contamination, to notify owners of private drinking water wells that may be affected by the groundwater contamination. If another Division of the TCEQ has evaluated the applicability of the groundwater contamination under TWC §26.408, submittal of the Drinking Water Survey Report to the RD is not required.

Applicability

Texas Water Code (TWC) §26.408 applies to any information that, for the first time on or after September 1, 2003, indicates that a private drinking water well is or may be affected by groundwater contamination. Therefore, the statute applies to all sites entered into a corrective action program on or after September 1, 2003 and to sites entered before that date when new evidence is submitted that indicates a private drinking water well is or may be affected.

If the TCEQ received documentation or otherwise discovered prior to September 1, 2003 that a private drinking water well was or might be affected by groundwater contamination, TWC §26.408 is not applicable. However, a Drinking Water Survey Report may still be requested by the RD to ensure that notice is provided to all affected or potentially affected private drinking water well owners and users.

Activities necessary for the completion of a Drinking Water Survey Report are also applicable to the performance of an affected property assessment under the Texas Risk Reduction Program (TRRP) rule. Use the information collected for a Drinking Water Survey Report in the

preparation of a TRRP Affected Property Assessment Report (APAR). Be aware, however, that TRRP requires the identification of additional sensitive receptors such as schools and day care centers within 500 feet of the affected property boundary and surface water bodies within 0.5 miles of the known extent of groundwater contamination. In order to reduce or eliminate redundancy, record for later use the presence of other sensitive receptors noted in the surveys required by this document.

Background

The 78th Legislature passed House Bill 3030 which was subsequently codified as §26.408, Subchapter J of the TWC. The Act reads:

> SECTION 1. Subchapter J, Chapter 26, Water Code, is amended by adding Section 26.408 to read as follows:
>
> 26.408. NOTICE OF GROUNDWATER CONTAMINATION.
>
> (a) If a state agency documents under Section 26.406(a) a case of groundwater contamination that may affect a drinking water well, the state agency shall notify the commission.
>
> (b) Not later than the 30th day after the date the commission receives notice under Subsection (a) or obtains independent knowledge of groundwater contamination, the commission shall make every effort to give notice of the contamination by first class mail to each owner of a private drinking water well that may be affected by the contamination and to each applicable groundwater conservation district.
>
> (c) The committee by rule shall prescribe the form and content of notice required under this section.
>
> SECTION 2. This Act takes effect September 1, 2003, and applies only to a case of groundwater contamination documented on or after that date. A case of groundwater contamination documented before the effective date of the Act is governed by the law in effect on the date the contamination is documented, and the former law is continued in effect for that purpose.

TWC §26.408 significantly affects how the TCEQ and, in particular, the RD responds to reports of groundwater contamination. In short, the law allows the TCEQ a maximum of 30 days to provide notice to owners of private drinking water wells that may be affected by groundwater contamination. Title 31 Texas Administrative Code (TAC) Chapter 601 Subchapter B (relating to Notice of Groundwater Contamination), which was adopted by the TCEQ in response to TWC §26.408, prescribes the form and content of the notice.

Implementation of TWC §26.408 requires new actions to be taken by both the regulated community and RD staff. Historically, the regulated community initially reported a case of groundwater contamination to the RD and, at a later date, submitted an assessment report that included a discussion of potential receptors, such as the location and use of surrounding water wells. In order for the RD to meet the 30-day timeframe, the regulated community must provide information on water wells at the same time the case of groundwater contamination is initially reported or immediately thereafter.

Therefore, complete and submit a Drinking Water Survey Report when reporting a new case of groundwater contamination to the RD (or at any time thereafter when requested by the RD

including a request to update the report). The submittal of a Drinking Water Survey Report will ensure the RD is consistently alerted and provided sufficient information to evaluate TWC §26.408 applicability and complete any required notifications within the statutorily required 30-day time frame. Realize that if the groundwater assessment is completed in a phased manner, re-evaluation of the steps discussed later in this guide will be necessary at the completion of each phase.

Definitions

The definitions for the following terms were obtained from the Texas Administrative Code (TAC) when available. These definitions limited to use in this document and other related documents, are provided in order to determine applicability and ensure consistent implementation of TWC §26.408 within the Remediation Division.

Groundwater – water below the land surface in a zone of saturation (31TAC §601.3).

Groundwater contamination – the detrimental alteration of the naturally occurring physical, thermal, chemical or biological quality of groundwater reasonably suspected of having been caused by activities or by entities under the jurisdiction of the TCEQ (31 TAC Chapter 601). For the purpose of this document, the Remediation Division limits groundwater contamination to chemical concentrations that exceed residential health-based values for ingestion.

Groundwater production zone – the zone of saturation in which a water well is screened or completed. If the well completion is unknown or incomplete, the groundwater production zone includes each saturated zone penetrated by the well.

Person – an individual, corporation, organization, government, or governmental subdivision or agency, business trust, partnership, association, or any other legal entity (30 TAC Chapter 350).

Private drinking water well – a non-public water well that is used for human consumption or is plumbed to a structure for potable purposes.

Public water well – a water well that has at least 15 service connections or serves at least 25 individuals at least 60 days out of the year (30 TAC Chapter 290).

Information Collection

The following procedures outline the minimum necessary steps for the preparation of a Drinking Water Survey Report. Repeat this process if the assessment is conducted in a phased approach.

Step 1: Identify Local Public Drinking Water Source(s)

Purpose: to document the availability of a public water supply (PWS) within the coverage area and to identify the properties that are not serviced by or connected to an existing public water supply.

Coverage area: 0.5 miles beyond the known extent of groundwater contamination. [1]

Minimum information sources: Local retail public utilities (including individuals responsible for meter reading), municipalities, groundwater conservation districts, neighborhood associations, local water well drillers, the TCEQ, and the Texas Water Development Board (TWDB).

Step 2: Conduct a Records Survey of Water Wells

Purpose: to locate all recorded water wells within the coverage area and to determine the groundwater production zone(s). The RD recommends also locating surface water bodies within 0.5 miles of the known extent of groundwater contamination in order to reduce or eliminate redundancy with the performance of an affected property assessment.

Coverage area: 0.5 miles beyond the known extent of groundwater contamination. [1]

Minimum records sources: topographic maps, water well records filed with the Texas Department of Licensing and Regulation, the TWDB, the TCEQ, and the applicable groundwater conservation district.

Step 3: Conduct a Field Survey for Water Wells

Purpose: to locate water wells that were not identified during the records survey and to confirm the information obtained during the records survey.

Coverage area: visual survey within 500 feet and door-to-door survey within 0.25 miles of the known extent of groundwater contamination[1] (see Figure 1).

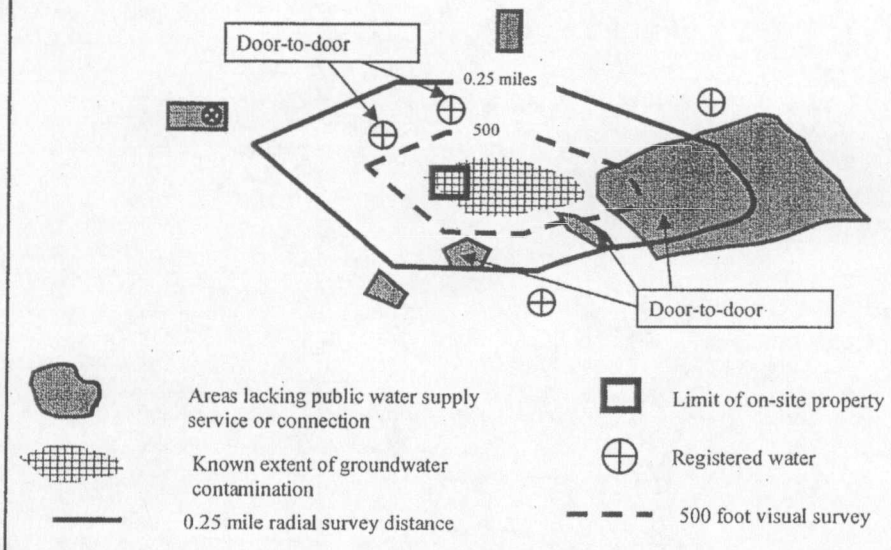
Minimum requirements for field survey (see Figure 1):

- Conduct a visual survey for water wells within 500 feet of the known extent of groundwater contamination[1],
- Conduct a door-to-door survey within 0.25 miles of the known extent of groundwater contamination[1] at properties
    - not serviced by or connected to a public water supply,
    - where a water well was identified during the record survey, and
    - where a water well is suspected to be present based on the field survey.

---

1 Ideally the extent of groundwater contamination should be defined to residential health-based values prior to making this determination. If not, the boundary is based on the known extent of groundwater contamination at the time the survey is conducted. The survey will need to be repeated as the groundwater contamination is further defined.

Figure 1. Map illustrating field survey coverage area and identified areas requiring door-to-door survey.



Conduct a visual survey (drive or walk the area) to determine if there is visual evidence of a water well. Presume a private drinking water well is present at a property not connected to a public drinking water supply if the absence of a water well can not be confirmed. Presume a water well is used to supply drinking water if the use of a well cannot be confirmed. Conduct a door-to-door survey in areas where a water well is known or suspected to be present.

During the door-to-door survey, collect the latitude and longitude coordinates, obtain the current mailing address and telephone number for the owner and user(s), and determine the use of each water well. Instructions for collecting and submitting the latitude and longitude coordinates are located at www.tceq.state.tx.us/remediation/twc26.408.html. This information should be submitted in electronic format as Attachment 3 of the Drinking Water Survey Report.

If the absence of a private drinking water well cannot be confirmed because the landowners/tenants are unavailable, contact the property owner by phone to obtain information regarding the presence or absence of a private drinking water well on the property.
The RD recommends also locating other sensitive receptors (schools, day care centers, etc.) within 500 feet of the known extent of groundwater contamination in order to reduce or eliminate redundancy during the performance of an affected property assessment.

Step 4: Prepare and Submit Drinking Water Survey Report

Report Format: The following describes the required content and format for the Drinking Water Survey Report. The RD intends that the Drinking Water Survey Report not be heavily text laden. Rather, include brief text and rely principally on graphical and tabular presentations of data.

Submit the original and one copy of the Drinking Water Survey Report to the appropriate program of the RD. Also include a CD of the requested electronic files.

Please be aware that the Remediation Division verifies that Professional Geoscientist's seals as required by law are provided on reports submitted to the agency. For information on what constitutes geoscience and the requirements for geoscientist licensing, please refer to the Board of Professional Geoscientists' web page at http://www.tbpg.state.tx.us.

Transmittal Form: Complete the Drinking Water Survey Report Transmittal Form provided as Attachment 1. The transmittal sheet must accompany the Drinking Water Survey Report and be plainly visible. Submit a copy of the Drinking Water Survey Report Form to the appropriate TCEQ Regional Office. A list of TCEQ Regional Offices may be found at the TCEQ web page at http://www.tceq.state.tx.us/about/directory/maps_index.html.

Executive Summary: Briefly describe the layout and use of the site, the contaminants in groundwater, any areas or locations without public water supply, and the number of private drinking water wells that are affected or potentially affected by the groundwater contamination.

Section 1. Groundwater Contamination: Discuss the groundwater contamination present at the site, including the concentrations of contaminants. Identify any water wells that have been sampled. Discuss the current phase of investigation, including whether or not the lateral and vertical extent of groundwater contamination has been defined to residential health-based values based on groundwater ingestion.

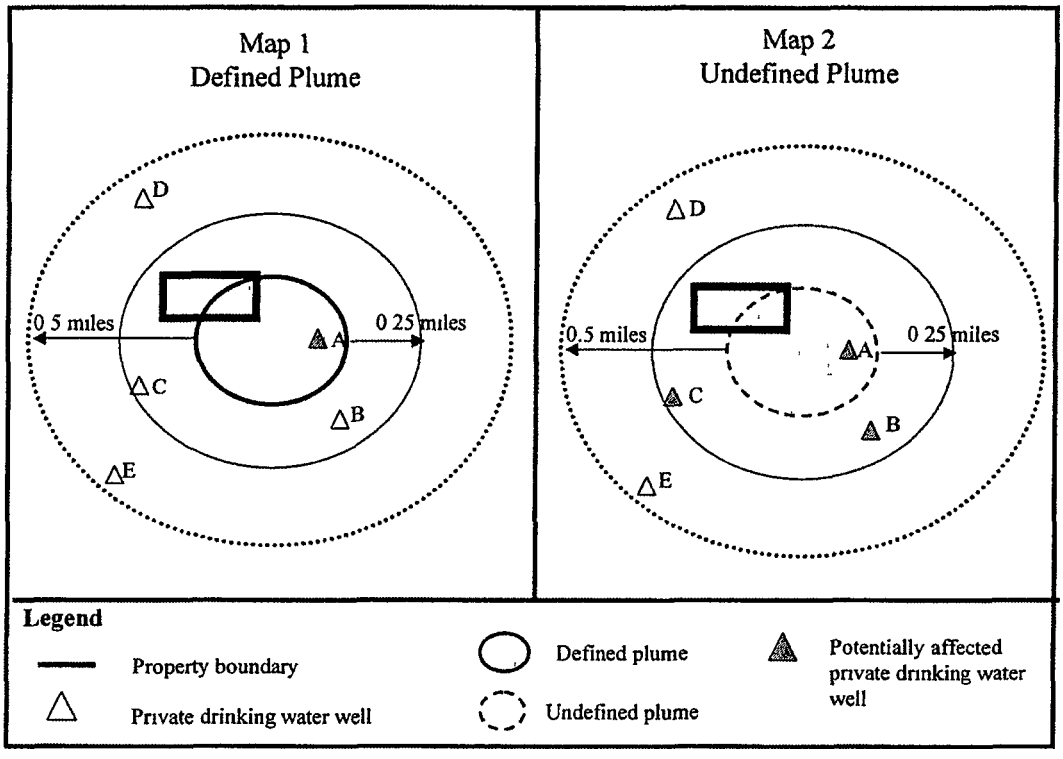
Section 2. Public Water Supply Availability: Discuss public water availability within one-half mile of the known extent of groundwater contamination. Note any areas not serviced by public water and properties not connected to an existing public water supply. Document how the information was obtained and provide names and contact information for the individuals who have provided pertinent information.

Section 3. Groundwater Production Zones: Identify the general groundwater production zones (as defined in this guidance) for the private drinking water wells identified in the records search and field survey.

Section 4. Affected or Potentially Affected Water Wells: Identify the private drinking water wells that are affected or potentially affected by the groundwater contamination. See Figure 2 for an illustration of potentially affected private drinking water wells relative to plume definition.

The default assumption is a private drinking water well is potentially affected if the well is located within the known extent of groundwater contamination (Well A in Map 1 and Map 2) or the private drinking water well is located within 0.25 miles of groundwater contamination that has not been defined (Well B and Well C in Map 2).

Figure 2 Maps illustrating survey radii and examples of potentially affected wells based on degree of plume definition.



Document the logic used to determine a water well is not affected or potentially affected. At a minimum, consider the following:

- Known extent of groundwater contamination and whether the groundwater contamination has been defined,
- Groundwater production zone of the water well,
- Age, design, and construction of the water well,
- Local hydrogeology, and
- Chemical and physical characteristics of the contaminant.

Map of Water Well Locations: Illustrate the following on a single map:

1. Boundaries of the on-site property;
2. Boundaries of properties within 0.25 miles of the known extent of groundwater contamination;
3. Areas without a public water supply and any properties that are not connected to an existing public water supply;
4. Known extent of groundwater contamination and illustrate whether the extent has been delineated to residential health-based values based on groundwater ingestion;
5. All water wells (drinking and non-drinking) identified in the records search and field survey. Label each well with a unique identification number;

6. Private drinking water wells by using a unique symbol for those wells; and
7. Radial coverage areas (500-foot, 0.25-mile, and 0.5-mile).

Table of Water Well Information: Provide a table of all water wells identified in the record and field survey.

Map ID Number[1]	State Well ID Number[2]	Distance from known extent of groundwater contamination (feet)	Physical Address of Well	Well Type[3]	Total Depth (feet)[4]	Screened Interval (feet)[4]	Sealed Interval (feet)[4]	Private Drinking Water Well? (Yes or No)[4, 5]	Affected or Potentially Affected? (Yes or No)	Well Owner Name, Current Mailing Address and Phone[5]	Well Users Name, Current Mailing Address and Phone[5]

1 Organize water wells from those nearest to the site to those furthest from the site
2. Provide State Well Id number if available
3 Private – "PRV", Irrigation – "I", Injection – "J", Industrial – "N", Public Supply – "P", Unknown – "U"
4 Enter "Unknown" if insufficient or no data is available.
5 Provide this information only for water wells located within the coverage area of the field survey

Table 2. Analytical Results: Submit a table of analytical results for groundwater samples collected from monitoring wells and water wells.

Attachment 1. Well Reports: Submit all available well reports for water wells identified in the records search and field survey.

Attachment 2. Mailing Lists: Provide mailing labels for each owner and user of an affected or potentially affected private drinking water well.

Attachment 3. Electronic Files: Provide an electronic file of Table 1 in Microsoft Word® or Microsoft Excel® format. Provide an electronic file of the water well information collected during the door-to-door survey in Microsoft Access® or .dbf format. Provide an electronic file of mailing labels (Attachment 2) in Microsoft Word® or Excel® formatted as a data source for mail merge to generate the notification letters required under TWC §26.408. These files should be submitted on a CD along with the report.

ATTACHMENT 1

REMEDIATION DIVISION - DRINKING WATER SURVEY REPORT TRANSMITTAL FORM

BACKGROUND: TWC §26.408 requires the TCEQ, within 30 days of the date the TCEQ receives notice or otherwise becomes aware of a case of groundwater contamination, to notify owners of private drinking water wells that may be affected by the groundwater contamination.

USE: Use this form as a transmittal sheet to a Drinking Water Survey Report.

Program: _____		**Transmittal Date:** _____	
Program ID No.: _____		**Document Date:** _____	
Facility Name: _____			
Physical address of property where groundwater assessment was conducted			
Street	City		
Do the concentrations in groundwater exceed residential health-based values?		☐ Yes	☐ No
Has the extent of groundwater contamination been defined to residential health-based values based on ingestion?		☐ Yes	☐ No
Are there any private drinking water wells located within a 0 25-mile radius of the property boundary or known extent of groundwater contamination?		☐ Yes	☐ No
Based upon the available data, do groundwater concentrations exceed or are they suspected to exceed residential health-based values in any water well?		☐ Yes	☐ No

TCEQ-20245

Appendix C

City of Grand Prairie Public Water Supply Map

Not Available

Appendix D
Water Well Logs

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Woodbine | Field No. | State Well No. 33-09-702
Owner's Well No. | County Dallas

1. Location: ___ 1/4, ___ 1/4 Sec. ___ Block ___ Survey ___
3rd + Bowles St.
2. Owner: City of Grand Prairie Address: Grand Prairie, Tex.
Tenant: Address:
Driller: Address:
3. Elevation of ___ is 465 ft. above msl, determined by
4. Drilled: 1950; Dug, Cable Tool, (Rotary)
5. Depth: Rept. 460 ft. Meas. ___ ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfr. ___ Type Turbine
No. Stages ___, Bowls Diam. ___ in., Setting 325 ft.
Column Diam. ___ in., Length Tailpipe ___ ft.
8. Motor: Fuel Elect Make & Model ___ HP. 15
9. Yield: Flow ___ gpm, Pump 50 gpm, Meas. (Rept.) Est.
10. Performance Test: Date ___ Length of Test ___ Made by ___
Static Level ___ ft. Pumping Level ___ ft. Drawdown ___ ft.
Production ___ gpm Specific Capacity ___ gpm/ft.
11. Water Levels: ___ ft. rept. / meas. ___ 19 ___ above / below ___ which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19 ___ above / below ___ which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19 ___ above / below ___ which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19 ___ above / below ___ which is ___ ft. above / below surface.
12. Use: Dom., Stock, (Public Supply), Ind., Irr., Waterflooding, Observation, Not Used. Plugged & Abandoned
13. Quality: (Remarks on taste, odor, color, etc.)
Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log, Formation Samples, Pumping Test.
15. Record by: Gene Davis Date 5-27-1975
Source of Data
16. Remarks: Formerly owned by Texas Water Co.
Well was plugged & abandoned

CASING & BLANK PIPE

Cemented From ___ ft. to ___ ft.

Diam. (in.)	Type	Setting, ft. From	To
8			

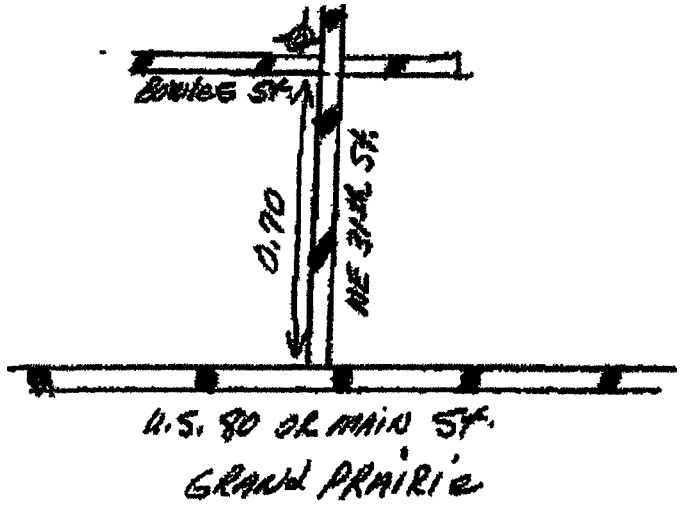
WELL SCREEN

Screen Openings

Diam. (in.)	Type	Setting, ft. From	To

TWDB-WD-2 (Sketch)

33-09-702


Davies St.
0.70
NE 3rd St.
U.S. 80 or Main St.
Grand Prairie

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 3/22, 19 61 Field No. ______

Record by ______ Office No. ______

Source of data ______ - water dept.

1. Location: County Dallas

Map ______ city map (31st and ______)

Survey ______

2. Owner: City ______ Address #19

Tenant ______ Address ______

Driller ______ Address ______

3. Topography ______

4. Elevation 4753 ft. above below MSL

5. Type: Dug, Drilled, Driven, Bored, Jetted 19 50

6. Depth: Rept. 460 ft. Meas. ______ ft.

7. Casing: Diam. 8 in., to ______ in., Type ______

Depth ______ ft., Finish ______

8. Chief Aquifer: Woodbine From ______ ft. to ______ ft.

Others ______

9. Water level: ______ ft. rept. meas. ______ 19 ______ above below ______

______ which is ______ ft. above below surface

10. Pump: Type T Capacity ______ gpm

Power: Kind E Horsepower ______

11. Yield: Flow ______ gpm, Pump ______ gpm, Meas., Rept. Est. ______

Drawdown ______ ft. after ______ hours pumping ______ gpm

12. Use: Dom., Stock, PS, RR., Ind., Obs. Irr. ______

Adequacy, permanence ______

13. Quality: ______

Temp. ______ °F ______ Sample Yes No

14. Log: Yes No

15. Remarks: ______

______ (Pump set at 325') ______

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer: Twin Mountains | Field No. 11 | State Well No. 33-09-703
Owner's Well No. 16 | County: Dallas

1. Location: ___ 1/4, ___ 1/4 Sec. ___, Block ___, Survey ___
2. Owner: City of Grand Prairie Address: ___
   Tenant: ___ Address: ___
   Driller: J.L. Myers Sons Address: ___
3. Elevation of ___ is 475 ft. above msl, determined by Topo
4. Drilled: July 1958; Dug, Cable Tool, (Rotary)
5. Depth: Rept. 2163 ft. Meas. ___ ft.
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed
7. Pump: Mfr. ___ Type Sub
   No. Stages ___, Bowls Diam. ___ in., Setting 1054 ft.
   Column Diam. ___ in., Length Tailpipe ___ ft.
8. Motor: Fuel Elect Make & Model ___ HP 100
9. Yield: Flow ___ gpm, Pump 295 gpm (Est.), Rept., Est. 4-3-75 Elev/Meter
10. Performance Test: Date ___ Length of Test ___ Made by ___
   Static Level ___ ft. Pumping Level ___ ft. Drawdown ___ ft.
   Production ___ gpm Specific Capacity ___ gpm/ft.
11. Water Level: WL 620 ft. 8-12-1958 which is ___ ft. above/below surface.
   WL 590 ft. 12-29-1958 which is ___ ft. above/below surface.
   WL 564 ft. 3-23-1958 which is ___ ft. above/below surface.
   WL 599 ft. 1-5-1958 which is ___ ft. above/below surface.
12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation, Not Used
13. Quality: (Remarks on taste, odor, color, etc.)
   Temp. ___ °F, Date sampled for analysis 5-16-74 Laboratory THD
   Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
   Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
14. Other data available as circled: (Driller's Log), Radioactivity Log, Electric Log, Formation Samples, Pumping Test
15. Record by: Eric Davis Date 5-7-1975
   Source of Data: Misc. WW-45, 1148 Holland, etc.
16. Remarks: Date — gpm
   6-3-55 = 594
   7-11-55 = 585
   9-8-55 = 570
   6-2-56 = 588
   7-17-56 = 560
   9-21-56 = 520
   10-18-56 = 520 (3 days)

CASING & BLANK PIPE

Cemented From ___ ft. to ___ ft.

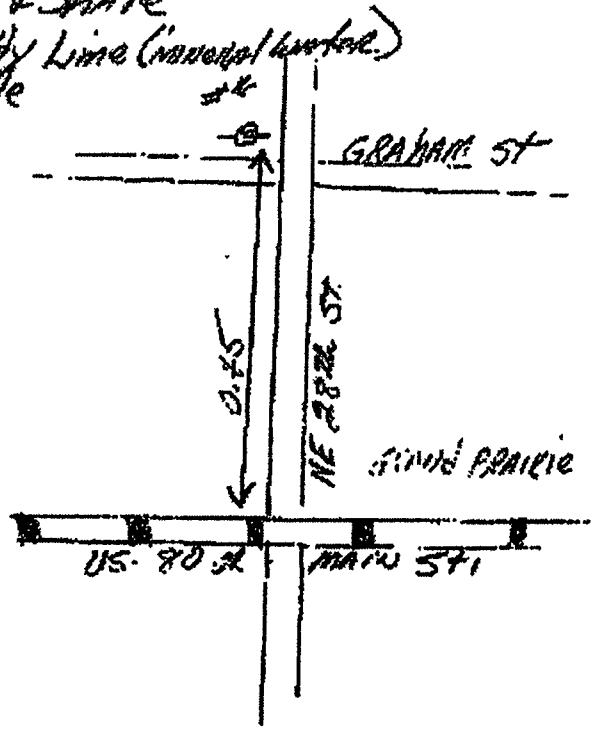
Diam. (in.)	Type	Setting, ft. From	To
20	Steel	0	50
16	"	0	900
10 3/4	"	900	1721
6 5/8	"	1721	2163

WELL SCREEN

Screen Openings

Diam. (in.)	Type	Setting, ft. From	To
6 5/8	Screen	2006	2163

Drillers Log
0-20 – Surface soil
50 – Sand, Gravel & Clay
195 – Shale
510 – Sand, Broken with Shale
[illegible] – Broken Lime & Shale
912 – Shale
985 – Lime
1010 – Shells
1090 – Sand
1120 – Shale
1145 – Sand
1350 – Broken Lime & Shale Streaks
1625 – Lime & Sand Layers
1850 – Broken Lime & Shale
1900 – Sand & Sandy Lime (mineral water)
1925 – Broken Lime & Shale
2140 – Sand
2165 – Shale



Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 5/22, 1961 Field No. ______

Record by [illegible] Office No. HE 53-[illegible]

Source of data [illegible] – Water Supt.

1. Location: County Dallas
   Map see city map (28th & Graham)
   Survey ______
2. Owner: City of Grand Prairie Address ______
   Tenant ______ Address ______
   Driller J. L. Myers Sons Address ______
3. Topography: ______
4. Elevation: [illegible] ft. above / below MSL
5. Type: Dug, **drilled** (circled), driven, bored, jetted ___ 1953
6. Depth: Rept. 2102 ft. Meas. ______ ft.
7. Casing: Diam. ______ in., to ______ in., Type ______
   Depth ______ ft., Finish ______
8. Chief Aquifer: Travis peak From ______ ft. to ______ ft.
   Others ______
9. Water level: ______ ft. rept. / meas. ______ 19__ above / below ______ which is ______ ft. above / below surface
10. Pump: Type Turbine Capacity ______ gpm
    Power: Kind E Horsepower 150 [illegible]
11. Yield: Flow ______ gpm, Pump 540 / 945 gpm, Meas., Rept. (circled), Est. [illegible]
    Drawdown ______ ft. after ______ hours pumping ______ gpm
12. Use: Dom., Stock, **PS** (circled), RR., Ind., Obs. Irr. ______
    Adequacy, permanence ______
13. Quality: ______
    Temp. ______ °F ______ Sample Yes / **No** (circled)
14. Log: **Yes** (circled) / No E log in city file
15. Remarks:
    KS -792' well #11 in C. [illegible]

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

33-09-703

WELL SCHEDULE

Date 10-16, 1956 Field No. ______

Record by Chris Ward Office No. 11

Source of data Ed Walker

1. Location: County Dallas
   Map ______
   Survey ______
2. Owner: City of Grand Prairie #16
   Tenant ______ Address ______
   Driller J. L. Myers Sons Address ______
3. Topography: ______
4. Elevation: 492 ft. above / below ______
5. Type: Dug, drilled, driven, bored, jetted ______ 19__
6. Depth: Rept. 2165 ft. Meas. ______ ft.

11 7. Casing: Diam. ______ in., to ______ in., Type ______
   Depth ______ ft., Finish ______
8. Chief Aquifer: TP From 1900 ft. to 2050 ft.
   Others ______

13 9. Water level: 399 ft. (rept.) meas. ______ 19__ above / below ______ which is ______ ft. above / below surface

12 10. Pump: Type DJ submersible Capacity 1500 ... 200' TDH
   Power: Kind Electric Horsepower 150

11. Yield: Flow ______ gpm, Pump 520 gpm, Meas. (Rept.) Est. ______
    Drawdown 645 ft. after ______ hours pumping 520 gpm
12. Use: Dom., Stock, (PS), RR., Ind., Obs., Irr. ______
    Adequacy, permanence ______
13. Quality: ______
    Temp. ______ °F ______ Sample Yes / No ______
14. Log: Yes / No ______
15. Remarks: ______

TEXAS WATER DEVELOPMENT BOARD — WATER LEVEL MEASUREMENTS

OWNER - City of Grand Prairie AS OF #16 LOCATION - Graham & NE 28th

MEASURING POINT DESCRIPTION - Air Line

STATE WELL NUMBER 33-09-703 LAND SURFACE DATUM ELEVATION 475'

DEPTH OF WELL 2163 COMPLETION INTERVAL 2006' - 2163'

DATE OF CURRENT MEASUREMENT			CURRENT DEPTH TO WATER FROM LSD IN FEET	DATE OF LAST MEASUREMENT			PREVIOUS MEASUREMENT IN FEET	CHANGE IN LEVEL SINCE THE LAST MEASUREMENT	MEASURING AGENCY	MEASURING METHOD	REMARKS	WATER USE	M P	DEPTH TO WATER FROM M P
MO.	DAY	YR.		MO.	DAY	YR.								
08	12	54	622.0						10	3	02	1		
12	29	54	587.0						10	3	02	1		
03	29	55	564.0						10	3	02	1		
01	25	56	599.0						10	3	02	1		
04	13	56	622.0						10	3	02	1		
06	02	56	645.0						10	3	02	1		588 gpm
07	17	56	659.0						10	3	02	1		550 "
09	21	56	657.0						10	3	02	1		520 "
10	19	56	683.0						10	3	02	1		520 "
04	03	74	744.0						10	3		1		
04	22	75	834.0						10	3	02	1		295 gpm

YR. REC. BEGINS AQUIFER COUNTY WATERSHED

OLD WELL NUMBER COUNTY -

TWDBE-GW-41

33-09-703

TEXAS WATER DEVELOPMENT BOARD — WATER LEVEL MEASUREMENTS

OWNER City of Grand Prairie AS OF LOCATION -

MEASURING POINT DESCRIPTION -

STATE WELL NUMBER 33-09-703 LAND SURFACE DATUM ELEVATION 435

DEPTH OF WELL 2163 COMPLETION INTERVAL 2026'-2163'

DATE OF CURRENT MEASUREMENT MO.	DAY	YR.	CURRENT DEPTH TO WATER FROM LSD IN FEET	DATE OF LAST MEASUREMENT MO.	DAY	YR.	PREVIOUS MEASUREMENT IN FEET	CHANGE IN LEVEL SINCE THE LAST MEASUREMENT	MEASURING AGENCY	MEASUREMENT METHOD	REMARKS	WELL USE	M P	DEPTH TO WATER FROM M P
07	29	53	369.20											
11	23	53	384.20											
12	14	53	378.58											
04	16	54	498.65											
12	29	54	442.0											
03	21	55	441.0											
05	23	55	440.0											
01	04	56	453.0											
02		54	382.0											
10		54	446.0											

YR. REC. BEGINS AQUIFER COUNTY WATERSHED

OLD WELL NUMBER COUNTY -

TWDBE-GW-41

33-09-703

TEXAS WATER DEVELOPMENT BOARD — WATER LEVEL MEASUREMENTS

OWNER City of Seadrift/Alcoa AS OF LOCATION -

MEASURING POINT DESCRIPTION -

STATE WELL NUMBER 33-09-703 LAND SURFACE DATUM ELEVATION 4.5

DEPTH OF WELL 2163 COMPLETION INTERVAL 2026'-2163'

DATE OF CURRENT MEASUREMENT MO.	DAY	YR.	CURRENT DEPTH TO WATER FROM LSD IN FEET	DATE OF LAST MEASUREMENT MO.	DAY	YR.	PREVIOUS MEASUREMENT IN FEET	CHANGE IN LEVEL SINCE THE LAST MEASUREMENT	PUMPING	PUMPING PERIOD	REMARKS	USE	M P	DEPTH TO WATER FROM M P
07	29	53	369.20											
11	23	53	384.20											
12	14	53	378.58											
04	16	54	498.65											
12	29	54	442.0											
03	21	55	441.0											
05	23	55	440.0											
01	04	56	453.0											
02		57	392.0											
10		57	446.0											

YR. REC. BEGINS AQUIFER COUNTY WATERSHED

OLD WELL NUMBER COUNTY -

TWDBE-GW-41

33-09-703

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Woodbine   Field No. #391   State Well No. 33 17 105
Owner's Well No. #1   County Dallas

1. Location: ___ 1/4, ___ 1/4 Sec. ___ Block ___ Survey ___
2. Owner: U.S. Air Force   Address: Grand Prairie, Tex.
   Tenant: Hensley Field   Address:
   Driller: J.L. Myers Sons   Address: Dallas, Texas
3. Elevation of ___ is 490 ft. above msl, determined by Topo
4. Drilled: 3-21 19 41; Dug, Cable Tool, Rotary
5. Depth: Rept. 485 ft. Meas. ___ ft. Plugged back to
6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed 413'
7. Pump: Mfgr. ___ Type Turbine
   No. Stages ___, Bowls Diam. ___ in., Setting ___ ft.
   Column Diam. ___ in., Length Tailpipe ___ ft.
8. Motor: Fuel Elect Make & Model ___ HP. 15
9. Yield: Flow ___ gpm, Pump 100 gpm, Meas. Rept. Est.
10. Performance Test: Date ___ Length of Test ___ Made by ___
    Static Level ___ ft. Pumping Level ___ ft. Drawdown ___ ft.
    Production ___ gpm Specific Capacity ___ gpm/ft.
11. Water Level: 300.0 ft. rept. meas. 19 58 above below 451 ft. ___ which is ___ ft. above below surface.
    ___ ft. rept. meas. 19 ___ above below ___ which is ___ ft. above below surface.
    ___ ft. rept. meas. 19 ___ above below ___ which is ___ ft. above below surface.
    ___ ft. rept. meas. 19 ___ above below ___ which is ___ ft. above below surface.
12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation, Not Used. Plugged + Abandon
13. Quality: (Remarks on taste, odor, color, etc.)
    Temp. ___ °F, Date sampled for analysis 5-20-58 Laboratory
    Temp. ___ °F, Date sampled for analysis ___ Laboratory
    Temp. ___ °F, Date sampled for analysis ___ Laboratory
14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log, Formation Samples, Pumping Test,
15. Record by ___ Date ___ 19__
    Source of Data TBWE Sch +
16. Remarks:
    Plugged + Abandon

CASING & BLANK PIPE

Cemented From ___ ft. to ___ ft.

Diam. (in.)	Type	Setting, ft. From	To
8 5/8	steel	0	390
6	steel	390	413

WELL SCREEN

Screen Openings Perf.

Diam. (in.)	Type	Setting, ft. From	To
8	steel	358	313
6	"	390	405

TWDB-WD-2   (Over)

33-17-105

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date *3/24*, 19*61* Field No. ______

Record by *[illegible]* Office No. *HK33171O5*

Source of data *Mr. [illegible] [illegible] & Myers*

1. Location: County *Dallas*
   2.2 mi. E of center of Grand Prairie
   in building # 303 (see back)
2. Owner: *U.S. Air Force* Address *Grand Prairie, Tex.*
   Tenant *Hensley Field #7* Address ______
   Driller *J.L. Myers & Sons* Address *Dallas, Tex.*
3. Topography: *rolling prairie*
4. Elevation: *484±* ft. (above) below *MSL*
5. Type: Dug, (drilled), driven, bored, jetted ______ 19*41*
6. Depth: Rept. *450* ft. Meas. ______ ft.
7. Casing: Diam. *8* in. to *400'* in., Type ______
   Depth ______ ft., Finish ______
8. Chief Aquifer: *Kwd* From *398* ft. to *448* ft.
   Others *producing*
9. Water level: *300* ft. (rept.) meas. ______ 19*58* above below ______
   ______ which is ______ ft. above below surface
10. Pump: Type *T* Capacity ______ gpm. ______
    Power: Kind *E* Horsepower *15*
11. Yield: Flow ______ gpm, Pump *120* gpm, Meas. (Rept.) Est. ______
    Drawdown ______ ft. after ______ hours pumping ______ gpm
12. Use: Dom., Stock, (PS), RR., Ind., Obs., Irr. ______
    Adequacy, permanence ______
13. Quality: ______
    Temp. ______ °F ______ Sample (Yes) No *1958*
14. Log: Yes (No)
15. Remarks: *see Myers & Dor more info*
    Well #1
    [illegible]
    [illegible]

Drillers Log

0. 8. [illegible]
15- Yellow Clay
21- [illegible]
140- Sandy Shale
170- Hard Sandrock
209- Sand
262- Brown Shale
314- Sand
375. Shale
378- Lime Rock
401- Fine Sand
485- Shale

33-17-105

ANALYTICAL STATEMENT

COUNTY Dallas

Well No. HR3317105

Location	US Air Force Hensley Field #1
Source (type of well)	
Owner	above
Date drilled	1941
Depth	450 ft
WBF	Woodbine
Producing interval	
Water level	ft
Sampled after pumping	
Yield	gpm
Pt of coll.	well
Appearance	
Temp (°F)	
Collector	BS
Chemist	USGS
Date completed	

Date of collection	5/26/58
Ignition loss	
Dissolved Solids	
Calculated (sum)	733
Residue at 180°C	742
Tons per acre foot	
Hardness as $CaCO_3$	4
N.C. hardness	0
% Na	99
SAR	
RSC	
Specific conductance (micromhos at 25°C)	1170
pH	9.5
Color	

CO_2 (calc): 2.6
alk as $CaCO_3$ = 421

	epm	ppm
SiO_2		11
Fe		.01
Fe (total)		.07
Ca	0.09	1.8
Mg	.00	.0
Na	12.37	~~[illegible]~~
K	~~12.37~~	285
Na + K		
HCO_3	7.90	482
CO_3	.53	16
SO_4	2.47	1[illegible]
Cl	.68	24
F	.08	1.6
NO_3	.00	.0

KEY PUNCHED

GW-4

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer Woodbine Field No. #392 State Well No. 33-17-106
Owner's Well No. #2 County Dallas

1. Location: ___ 1/4, ___ 1/4 Sec. ___ Block ___ Survey ___

2. Owner: U.S. Air Force Address: Grand Prairie, Tex.
Tenant: Hensley Field Address: "
Driller: J. L. Myers Sons Address: Dallas, Texas

3. Elevation of ___ is 498 ft. above msl, determined by Topo

4. Drilled: July 1, 1942; Dug, Cable Tool, (Rotary)

5. Depth: Rept. 417 ft. Meas. ___ ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfgr. ___ Type Turbine
No. Stages ___, Bowls Diam. ___ in., Setting ___ ft.
Column Diam. ___ in., Length Tailpipe ___ ft.

8. Motor: Fuel Elect Make & Model ___ HP. 125

9. Yield: Flow ___ gpm, Pump 100 gpm, Meas., (Rept.), Est.

10. Performance Test: Date ___ Length of Test ___ Made by ___
Static Level ___ ft. Pumping Level ___ ft. Drawdown ___ ft.
Production ___ gpm Specific Capacity ___ gpm/ft.

11. Water Level: 302.0 ft. (rept.) 1958 (above / below) LSt. which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19__ above / below ___ which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19__ above / below ___ which is ___ ft. above / below surface.
___ ft. rept. / meas. ___ 19__ above / below ___ which is ___ ft. above / below surface.

12. Use: Dom., Stock, (Public Supply), Ind., Irr., Waterflooding, Observation, Not Used, Plugged & Abandoned

13. Quality: (Remarks on taste, odor, color, etc.)
Temp. ___ °F, Date sampled for analysis 9-20-58 Laboratory ___
Temp. ___ °F, Date sampled for analysis ___ Laboratory ___
Temp. ___ °F, Date sampled for analysis ___ Laboratory ___

14. Other data available as circled: (Driller's Log), Radioactivity Log, Electric Log, Formation Samples, Pumping Test, ___

15. Record by: ___ Date ___ 19__
Source of Data TBWE 5264

16. Remarks:
Plugged & abandoned

CASING & BLANK PIPE
Cemented From ___ ft. to ___ ft.

Diam. (in.)	Type	Setting, ft. From	To
10	Steel	0	34
8 5/8	"	0	417

WELL SCREEN
Screen Openings Perf.

Diam. (in.)	Type	Setting, ft. From	To
8 5/8	Steel	269	345

TWDB-WD-2 (Revised)

33-17-106

Drillers Log

0 - 13 - Surface soil
19 - Sand & gravel
38 - Mixed clay
[illegible] - Shale
200 - Sand
202 - Rock
264 - Shale
[illegible] - Brown sandy shale
315 - Natural sand
376 - Gray sandy shale
379 - Lime
411 - Gray shale
415 - Sandy lime
417 - Shale

33-17-10 b

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas Department of Health Laboratories
1100 West 49th Street
Austin, Texas 78756

TDWR ONLY

Organization No. ______ Lab No. ______

Work No. ______

CHEMICAL WATER ANALYSIS REPORT

Send report to:

Data Collection and Evaluation Section
Texas Department of Water Resources
P.O. Box 13087
Austin, Texas 78711

Analysis copied from Texas Department of Health Files

County 057 Dallas

State Well No. 33-17-10

Well No. ______

Date Collected 11-15-61

Owner U.S. Naval Air Station ______ Send copy to owner Sample No. ______ By CSF

Address ______ Well Location ______

Date Drilled ______ Depth 417 ft. WBF ______ Source (type of well) ______

Producing intervals ______ Water level ______ ft. Sample depth ______ ft.

Sampled after pumping ______ hrs. Yield ______ GPM ______ Temperature ______ °F ______ °C

Point of collection ______ Appearance ☐ clear ☐ turbid ☐ colored ☐ other

Use ______ Remarks ______

(FOR LABORATORY USE ONLY)

CHEMICAL ANALYSIS

Laboratory No. ______ Date Received 11-20-61 Date Reported 11-28-61

Constituent	Code	MG/L	ME/L
Silica	00955		
Calcium	00910	2	
Magnesium	00920	<1	
Sodium	00929	380	
Total			
☐ Potassium	00937		
[1] Manganese	01055	<0.05	
☐ Boron	01022		
[1] Total Iron	01045	0.34	
☐ (other)			

%Na ______

SAR ______

RSC ______

Specific Conductance (micromhos/cm³) 00095 1742

Diluted Conductance (micromhos/cm³): ______ x ______ = ______

Constituent	Code	MG/L	ME/L
Carbonate	00445	0	
Bicarbonate	00440	519	
Sulfate	00945	310	
Chloride	00940	49	
Fluoride	00951	1.5	
Nitrate	71850	<0.40	
pH	00403	8.3	
Total			
[1] Dissolved Solids (residue at 180° C)	70300	1109	
Phenolphthalein Alkalinity as CaCO3	00415		
Total Alkalinity as CaCO3	00410	42	
Total Hardness as CaCO3	00900		
[2] Nitrogen Cycle: Ammonia - N	00610		
Nitrite - N	00615		
Nitrate - N	00620		
Organic Nitrogen	00605		

"☐" Items will be analyzed if checked.

[1] The bicarbonate reported in this analysis can be converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure used in the computation of dissolved solids.
[2] Requires separate sample.
[3] Total iron and Manganese require separate sample.

Analyst ______ Checked By ______

TDWR 0148 (Rev. 04-07-80)

Form GW-1

TEXAS BOARD OF WATER ENGINEERS

GROUND-WATER DIVISION

WELL SCHEDULE

Date 3/24, 1961 Field No. ______
Record by U.S. Office No. AR 33 17 106
Source of data Frank Wieskopf

1. Location: County Dallas
Map 3.2 mi. E. of center of Grand Prairie 2 Well
Survey located in building 1061, see back of AR 33 17 105
2. Owner: U.S. Air Force Address Grand Prairie, Tex.
Tenant Hensley Field #2 Address ______
Driller J.L. Myers & Sons Address Dallas, Tex.
3. Topography: rolling prairie
4. Elevation: 488± ft. above below MSL
5. Type: Dug, (drilled), driven, bored, jetted ____ 19 42
6. Depth: Rept. 451 ft. Meas. ______ ft.
7. Casing: Diam. 8 in. [illegible] in. Type ______
Depth ______ ft., Finish ______
8. Chief Aquifer: Kwd From 375 ft. to 448 ft.
Others producing
9. Water level: 200 ft. (rept.) meas. ______ 19 58 above below ______
______ which is ______ ft. above below surface
10. Pump: Type T Capacity ______ gpm ______
Power: Kind E Horsepower 15
11. Yield: Flow ______ gpm, Pump 100 gpm, Meas. (Rept.) Est. ______
Drawdown ______ ft. after ______ hours pumping ______ gpm
12. Use: Dom., Stock, (PS), RR., Ind., Obs. Irr. ______
Adequacy, permanence ______
13. Quality: ______
Temp. ______ °F ______ Sample (Yes) No 1958
14. Log: Yes No
15. Remarks: see Myers' for more info
well # 2

ANALYTICAL STATEMENT COUNTY *Dallas*

Well No. HR 33 17 106
Location US Air Force, Hensley Field # 2
Source (Type of well)
Owner Abner at Grand Prairie

Date drld 1942 Depth 451 ft
WBF Woodbine
Producing interval 298-448
Water level 300 ft
Sampled after pumping
Yield 100 GPM
Pt of coll. well
Appearance
Temp (°F) Odor PS
Collector Base engineer
Owner USGS
Date completed

Date of collection 20/58
Ignition Loss
Dissolved Solids:
Calculated sum 208
Residue at 180°C 227
Tons per acre foot
Hardness as $CaCO_3$ 3
N.C. hardness 0
% Na 100 SAR RSC
Specific conductance (micromhos at 25°C) 1130
pH Color

CO_2 calc 2.2
total alk as $CaCO_3$: 444

	epm	ppm
SiO_2		11
Fe		.06
Fe (total)		.25
Ca	0.06	1.2
Mg	.00	.0
Na	12.16	} 280
K		
Na + K		
HCO_3	8.36	510
CO_3	.53	16
SO_4	2.56	123
Cl	.68	24
F	.09	1.8
NO_3	.00	.0

6864

KEY PUNCHED

Appendix E
Soil Boring Logs

ENSAFE

BORING LOG for B-1

Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

Project Number: 7540-005

Date Completed	9/4/02	Logged By	E Mears
Drilling Method	Direct Push Rig	Boring Depth	4 0 feet
Drilling Company	MagnaCore, Inc		
Sampling Method	4' DPT Tube		
Ensafe Rep	E Mears		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Water Levels
0						Dark brown silty CLAY, slight moist, no odor	
2	0 7		DELSSB0104	CL			
4						TD = 4' Boring plugged with bentonite	
6							
8							
10							

06-13-20... ROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\B1 BOR

ENSAFE

BORING LOG for B-2

Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

Project Number: 7540-005

Date Completed	9/4/02	Logged By	E Mears
Drilling Method	Direct Push Rig	Boring Depth	23 feet
Drilling Company	MagnaCore, Inc		
Sampling Method	. 4' DPT Tube		
Ensafe Rep	E Mears		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Water Levels
0						Concrete foundation.	
				SC		Tan Sand, loose, foundation backfill	
						Black asphalt, hard, dry	
2	84			CL		Dark brown silty CLAY with limestone gravels, stiff, slightly moist, no odor	
4						Dark brown silty CLAY, stiff, slight moist, minor chalk nodules (<5%)	
6	90 7		DELSSB0208				
8				CL		Transition color change to light brown-brown-orange, silty, sandy CLAY, stiff, slight moist Increasing LS/chalk nodules size (globular) Moist, no odor	
10	74					Decreasing chalk nodules	
12	43 4					Brown-orange silty-sandy CLAY, stiff, moist (not wet), with large globular chalk nodules	
14							
16	35 9					Light brown-orange SAND with clay, loose, moist to dry, no odor	
18	47 9			SC			
20						boring hole collapsed in at 20-feet	▼
22							
24						TD = 24' Boring plugged with bentonite.	

06-13-20... ...ROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\B2 BOR

ENSAFE

BORING LOG for B-3

Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

Project Number 7540-005

Date Completed	9/4/02	Logged By	E Mears
Drilling Method	Direct Push Rig	Boring Depth	25 5 feet
Drilling Company	MagnaCore, Inc		
Sampling Method	4' DPT Tube		
Ensafe Rep	E Mears		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Water Levels
0						Concrete	
2	135		DELSSB0304	CL		Dark brown silty CLAY, stiff, slight moist, minor chalk nodules, strong petroleum odor	
4						No petroleum odor, dirty organic odor	
6	42						
8	94			CL		Brown, dark gray, orange, gray silty (mottled coloring) CLAY, stiff, slight moist to dry, oxidation nodules (black-rusty, brittle (10%)	
10							
12	239						
14	1087			CL		Brown-orange silty-sandy CLAY, stiff, moist (not wet), with large globular chalk nodules	
16							
18							
20						boring hole collapsed in at 20-feet, temporary well installed to collect groundwater sample	▼
22							
24							
26						TD = 25 5'. Boring plugged with bentonite	

06-13-20... ROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\B3 BOR

ENSAFE

BORING LOG for B-4

Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

Project Number 7540-005

Date Completed	9/4/02	Logged By	E. Mears
Drilling Method	Direct Push Rig	Boring Depth	30 feet
Drilling Company	MagnaCore, Inc		
Sampling Method	4' DPT Tube		
Ensafe Rep	E Mears		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Water Levels
0						Concrete	
	35			CL		Dark brown silty CLAY, stiff, dry, no odor	
5						Not sampled from 4 to 30 feet	
10							
15							
20							

06-13-200... ...rOJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\B4 BOR

ENSAFE

BORING LOG for B-4

Former Delfasco Forge Facility
114 NE 28th Street
Grand Prairie, Texas

Project Number 7540-005

Date Completed	9/4/02	Logged By	E. Mears
Drilling Method	Direct Push Rig	Boring Depth	30 feet
Drilling Company	MagnaCore, Inc		
Sampling Method	4' DPT Tube		
Ensafe Rep	E Mears		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Water Levels
20						Groundwater encountered at 24 0 feet	▼
25							
30						TD = 30' Boring plugged with bentonite.	
35							
40							

06-13-200. ‹OJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\B4 BOR

BORING LOG for SB-12

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	23 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0						
	0			CH		CLAY, hard to stiff, no odor, dry, very drk brown, fat, samll pebbles, plastic
	2 7	27%				some iron oxide inclusions ~10%
5	145		DELSSB1206			color change to brown at 4 feet
	0	100%		CH-SC		SANDY CLAY, oragne yellow, soft, well-graded fine grained sand.
	0					calcareous deposit ~0 1" thick, white, hard
10	0			SM		SAND, silty, orange-yellow mottled with light brown, some clay present, damp
	0	100%	DELSSB1212			
	0					
15	40	100%				some iron stained clay stringers
	0		DELSSB1220			at 20 feet silty sand, very soft, well graded fine grains, ~0 2" thick.
20	0	100%				very coarse sands below, well cemented with iron oxide soils, ~0.5" thick.
	0	100%		CH-SC		CLAY, sandy, stiff, dry, no odor, orange-yellow
						sand increasing with depth
				SC-SM		CLAYEY SILTY SAND, damp, well graded fine sand grains
25						

06-13-20... ...r\PROJECTS\Delfasco Forge\Grand Prairie\Offsite Investigation\Well Logs\SB-11 BOR

ENSAFE

BORING LOG for SB-12

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	23 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0						CONCRETE, ~0.6 inches thick
	0			CH		CLAY, wet, dark gray, some dark brown, very soft, strong petroleum odor
	27	27%				
5	145		DELSSB1206			~1' black oily residue, semi-liquid, strong petroleum odor
	0	100%				color change to light gray mottled with yellowish orange, sandy, dry, stiff, plastic
	0					
10	0		DELSSB1212			
	0	100%		CH-SC		SANDY CLAY, light gray/olive green, iron oxide inclusions, dark reddish brown
	0					
15	40	100%		CH		CLAY, SAA
	0					
	0		DELSSB1220	CH-SC		SANDY CLAY, dark orange brown, soft, well sorted sand, damp
20	0	100%		SM-SW		SILTY SAND and CLAY intermittant, sand increasing with depth, yellowish orange
	0	100%				
25						TOTAL DEPTH 23 0 feet below ground surface. No groundwater was encountered. Samples collected at 6 feet, 12 feet, and 20 feet were analyzed for VOCs (Method 5035) and TPH (TX 1005)

06-13-20u... rOJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-12 BOR

ENSAFE

BORING LOG for SB-13

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0						ROCKS/CONCRETE RUBBLE, ~0 6 inches thick
	0					CLAY, dark gray, plastic. dry
	0	100%	DELSSB1304	CH		Organic/petroleum odor 1 inch zone of coarse sand Clay lightening with depth
5	0					
	0	100%				
	0			CH-SC		SANDY CLAY, light brown mottled with light gray, plastic, dry, no odor, becoming sandier with depth, organic inclusions
10		100%	DELSSB1312			Predominantly yellowish orange with light gray
		100%		SC		CLAYEY SAND, yellowish orange, dry, well sorted, soft to stiff
15		100%				
				SW		SAND, yellowish orange, soft, well sorted, damp
20		100%				
25						

TOTAL DEPTH 20.0 feet below ground surface. No groundwater was encountered. Samples collected at 4 feet and 12 feet were analyzed for VOCs (Method 5035) and TPH (TX 1005)

06-13-200b ... r\ROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-13 BOR

ENSAFE

BORING LOG for SB-14

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0						CONCRETE, ~0.6 inches thick
	2					CLAY, olive gray, dry, hard to stiff, plastic, small petroleum smell
	1 8					
	0					
	6 8	100%	DELSSB1404	CH		Small pebbles, yellowish orange mottled with gray, gray lightening with depth
5	19					Yellowish orange, black organic inclusions
	27					
		100%				
	42					
	53					SANDY CLAY, mottled gray and yellowish orange, small calcareous deposits
10		100%				
	77			CH-SC		
	57					With silt
		100%				
	49					
15						SAND, silty, yellowish orange, soft, well sorted, damp
	101		DELSSB1417			
		100%				
	22			SW		
	90					
	58	100%				
20						TOTAL DEPTH 20.0 feet below ground surface. No groundwater was encountered Sample collected at 4 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005) Sample collected at 17 feet was analyzed for VOCs (Method 5035) only
25						

06-13-2006 ... \PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-14 BOR

ENSAFE

BORING LOG for SB-15

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0					CONCRETE, ~0 6 inches thick
	0			CH		CLAY, dark gray, hard, plastic, dry, no odor
	0					
	0	100%	DELSSB1504			Olive green in color
5	0					
	0	100%				Light gray in color, some yellowish orange
	0			CH-SC		SANDY CLAY, light gray mottled with yellowish orange, iron or magnesium oxide deposits, sand increasing with depth
10	21	100%	DELSSB1511			
	21					
	5					
	12	100%				
	0			SC		CLAYEY SAND, yellowish orange, very plastic, dry to damp
15	0	100%				
	0					
	0	100%		SW		SAND, yellowish orange, well sorted, soft, dry
20						
25						

TOTAL DEPTH 20 0 feet below ground surface. No groundwater was encountered. Sample collected at 4 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005). Sample collected at 11 feet was analyzed for VOCs (Method 5035) only

06-13-200[illegible] ...r\PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-15 BOR

ENSAFE

BORING LOG for SB-16

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/28/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0					CONCRETE, ~0.6 inches thick
	0			CH		CLAY, dark gray, hard, plastic, dry, no odor
	0					
	0					
	0		DELSSB1604			
	0	100%				Olive green in color
5	0					
	0					
	4					Brown in color, small pebbles
	7					
	5	100%				Yellowish orange mottled with light gray in color, some sand
	17					
10	43					
	1	100%				
	31			CH-SC		SANDY CLAY, yellowish orange mottled with light gray, damp
	53		DELSSB1614			
	1	100%				
15	15					CLAYEY SAND
	56					
	31	100%		SC		
	41					
	60		DELSSB1620	SW		SAND, yellowish orange, well sorted, soft
20		100%				
						TOTAL DEPTH 20.0 feet below ground surface No groundwater was encountered Sample collected at 4 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005). Samples collected at 14 feet and 20 feet were analyzed for VOCs (Method 5035) only
25						

06-13-200[illegible] ...\PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-16 BOR

ENSAFE

BORING LOG for SB-17

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0	100%	DELSSB1704	CH		CLAY, dark gray, plastic, stiff, no odor, dry (damp from water dropping from surface), some grass roots
	0					
	0					
5	0					Olive gray in color, some iron oxide or magnesium oxide stained soils
	0	100%				
	7			CH-SC		SANDY CLAY, light gray mottled with yellowish orange, sand increasing with depth, iron or magnesium deposits (black in color and circular) ~10%
10	6					
	4	100%	DELSSB1714			
	26					
15	16	100%		SC		CLAYEY SAND, yellowish orange
	8					
	26					
	18			SW		SAND, yellowish orange, well sorted, moist
20	68	100%				
25						

TOTAL DEPTH 20 0 feet below ground surface No groundwater was encountered Sample collected at 4 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005). Sample collected at 14 feet was analyzed for VOCs (Method 5035) only.

06-13-2006 g \PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-17 BOR

ENSAFE

BORING LOG for SB-18

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0	75%	DELSSB1804	CH		CLAY, dark gray, soft, plastic, no odor, dry, base material, some grass roots, organic deposits
	0					
	0					
	0					
5	0					Olive gray in color, rootlets, some iron oxide or magnesium oxide stained soils
		100%				Brown with yellowish orange, some sand
10	0	83%		CH-SC		2 inch seam of coarse gravel SANDY CLAY, yellowish orange mottled with light gray, sand increasing with depth, iron or magnesium deposits
	4					
	2					
	0					
	9					
15						1/2 inch white calcium deposit
	15	100%		SW		SAND, yellowish orange , well sorted, damp to moist
	12					
	20					
	38	77%				
20						TOTAL DEPTH 20.0 feet below ground surface. No groundwater was encountered Sample collected at 4 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005)
25						

06-13-2006 g:\PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-18 BOR

BORING LOG for SB-19

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland and Holly Siggelko
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	. MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	. Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0					GRASS, fill material
	0	100%	DELSSB1904	CH		CLAY, dark gray, moist, soft, plastic, no odor
5	0					
	0					
	0	83%				
	0					
10	0					Light gray mottled with yellowish orange in color
	3	75%		CH-SC		SANDY CLAY, yellowish orange mottled with light gray, hard, damp
	2					
	4					4 inch iron or magnesium deposit
15	13					
	110	100%		SC		CLAYEY SAND, yellowish orange, very soft, moist, plastic
	280					
	224			SW		SAND, yellowish orange, well sorted, damp
20	285	94%	DELSSB1920			
25						

TOTAL DEPTH 20.0 feet below ground surface. No groundwater was encountered. Sample collected at 4 feet was analyzed for VOCs (Method 5035), cadmium, and lead. Sample collected at 20 feet was analyzed for VOCs (Method 5035) only.

06-13-200b ...\PROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-19 BOR

ENSAFE

BORING LOG for SB-20

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland and Holly Siggelko
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	40					Mud fill material, rock fill material, gravel fill material
	34					
	173		DELSSB2003			CLAY, black, slightly brittle, dry, petroleum odor
	24	100%		CH		
5	28					
	28		DELSSB2007			Dark gray in color, slightly plastic, damp, no odor
	39					SANDY CLAY, light gray mottled with yellowish orange, plastic, moist
	55	100%		CH-SC		
	120					
10	70					CLAYEY SAND, yellowish orange mottled with light gray, dry, hard, brittle
		83%		SC		
	46					
	58					SAND, yellowish orange, well sorted, dry
	51			SW		
15	26					SANDY CLAY, yellowish orange, moist, plastic
		83%				
	114					
	544		DELSSB2018	CH-SC		Black staining
	343		DELCSB2018			
	178	100%	DELSSB2020	CH		CLAY, yellowish orange, wet, plastic, hard
20						
25						

TOTAL DEPTH 20.0 feet below ground surface No groundwater was encountered. Sample collected at 3 feet was analyzed for VOCs (Method 5035) and TPH (TX 1005). Sample collected at 7 feet was analyzed for TPH (TX 1005) only. Samples collected at 18 feet and at 20 feet analyzed for VOCs (Method 5035) only

06-13-20... ...ROJECTS\Delfasco Forge\Grand Prairie\APAR\borings and wells\Boring Logs\SB-20 BOR

BORING LOG for SB-21

ENSAFE

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland and Holly Siggelko
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	0					Clay fill material, gravel fill material
	0			CH		CLAY, black, moist, plastic, no odor
	0	63%	DELSSB2104			
5	0					Dark gray in color
	0					
	0	100%				Light gray mottled with yellowish orange in color, iron or magnesium oxide deposits (black, hard, circular)
	0					
10	0					
	0					
	0	63%		CH-SC		SANDY CLAY, yellowish orange, hard, slightly plastic
	0					
	0			CH		CLAY, light gray with some sandy clay
15	0					
	3	73%		CH-SC		SANDY CLAY, yellowish orange, very soft, plastic, moist
	26					
	10					
	71			SC		CLAYEY SAND, yellowish orange, soft, plastic, moist
20	34	100%				
						TOTAL DEPTH 20 0 feet below ground surface. No groundwater was encountered. Sample collected at 4 feet was analyzed for VOCs (Method 5035) only.
25						

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ENSAFE

BORING LOG for SB-22

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number 7540-011

Date Completed	06/29/04	Logged By	Alycia Wieland
Drilling Method	Direct Push Technologies	Boring Depth	20 0 feet
Drilling Company	MagnaCore Environmental Drilling		
Sampling Method	Shelby Tube with plastic liners		
Ensafe Rep	Alycia Wieland and Holly Siggelko		

Depth in Feet	PID ppm	% Recovery	SAMPLE feet	USCS	GRAPHIC	DESCRIPTION
0	70		DELSSB2201			Clay fill material, gravel fill material
	44			CH		CLAY, dark gray, dry, plastic, no odor, stiff to soft, iron/organic reddish brown inclusions
	56	88%				Brown/olive in color with calcium deposits 1/2 inch in diameter ~5%
5	34					
	90					
	25					
	7	94%				Yellowish orange in color, sand increasing with depth
	29					
10	18					Calcium deposit 1 inch in diameter
	84	83%		CH-SC		SANDY CLAY, yellowish orange, well sorted, some calcium deposits
	116					
	175		DELSSB2215			
15	178			SW		SAND, yellowish orange, soft, well sorted, medium grains, magneseum deposits
	156	83%				
	67					
	107	100%	DELSSB2220	CH		CLAY, yellowish orange, plastic, dry, no odor
20						
25						

TOTAL DEPTH 20 0 feet below ground surface No groundwater was encountered. Samples collected at 1 foot, 15 feet, and 20 feet were analyzed for VOCs (Method 5035) only

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ENSAFE

BORING LOG for SB-23

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	10 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface conditions Concrete, approximately 6 inches
	23					At 0.5', Black to dark grey clay with minor silt and calcareous nodules 1mm to 3mm increasing in size and frequency with depth
	23		DELSSB2302			
	27					
	19			CH		
5	36					
	36					
	31					
	36					At 7 5', Brown to yellowish brown clay with very small grey mottling with depth
	36			CH		
	40		DELSSB2310			
10						Total Depth 10 feet below ground surface
15						

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BORING LOG for SB-24

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/22/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	15 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	11.2					Surface conditions: Gravel parking lot with sand base to 1.25'
	15.1		DELSSB2402	CH		At 1.25', Dark brown silty, fat clay with some calcareous nodules 1mm to 3mm, increasing in frequency with depth
	14.2					Grades to lighter brown clay, with increasing fine to very fine sand with depth
	15.1					
	17.2					
5	15.5					
	17.2			CL		At 6.0', Mixed brown sandy clay with dark brown silty clay
	18.5					
	15.9					At 8.5', Calcareous layer, approximately 2 inches thick
	15.5		DELSSB2410	ML/SM		At 9.0', Yellowish brown silty, clayey fine sands
10	17.6					
	18.0					
	17.6					
	18.0					
	15.1					
15						Total Depth 15 feet below ground surface.

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ENSAFE

BORING LOG for SB-25

Delfasco Forge
Offsite Investigation
Grand Praine, Texas

Project Number 0888801609

Date Completed	11/22/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	15 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	17 2					Surface conditions: Gravel and broken concrete surface.
	23 1		DELSSB2502	CH		At 1.0', Dark browh to grey silty clay, fat, with calcareous nodules increasing in frequency with depth.
	24 0					
	20 7					
5	23 6					Dark grey coloring decreases with depth
	27 4					
	28 7					
	29 5			CL		At 6.5', Grades to mixed dark brown to grey clay and brown silty and very fine sandy clay
	23.6					At 8 0', Yellowish brown and light grey mottled silty sand and sandy silt
	24 8		DELSSB2510			Unit is variably sandier in 2" to 4" thick intervals
10	25 3					
	27 8			ML/SM		
	21 8					
	22 7					
	23 1					
15						

Total Depth 15 feet below ground surface

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ENSAFE

BORING LOG for SB-26

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/22/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	15 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	33 4					Surface conditions Concrete from 0 to 5 inches, base material from 5-8 inches.
	31 6		DELSSB2602	CH		At 0 8', Dark grey to black slightly silty clay, fat, with calcareous nodules 1mm to 3mm increasing in frequency with depth
	34 6					
	36 8					
	35 1					
5	38 9			CL		At 5 0', Grades to brown to greyish brown silty clay mixed with yellowish brown silty clay Grades to brown with depth Sand content increases with depth.
	40 6					
	46 1					
	64 0			ML		At 8.5', Mottled yellowish brown sandy silt and silty sand Clay intervals up to 4 inches throughout
	64 2		DELSSB2610			
10	54 2					
	65 3			SM		At 11 0', Yellowish brown silty fine sand
	80 2					
	62 1					
	104 2		DELSSB2615			
15						Total Depth 15 feet below ground surface.

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BORING LOG for SB-27

ENSAFE

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	15 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface conditions. Soil, sandy brown silt and clay
	139.7					At 0 5', Dark brown to dark grey slightly silty clay.
	55 1		DELSSB2702			
	30 4					
	56 3			CH		
	63 1					
5	63 6					
	81 9					At 6.0', Grades to brown to yellowish brown silty clay with fine to very fine sand, some grey mottling
	111 8		DELSSB2708			
	97 6					
	62 9		DELSSB2710			
10				CL/ML		
	55 9					
	97 2					
	96 3					
	78 9					
	91 3			SM		At 14.0', yellowish brown silt and fine sand.
15						

Total Depth 15 feet below ground surface

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ENSAFE

BORING LOG for SB-29

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	15 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep.	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	16 8					Surface conditions Grass on brown sandy silt and clay
	27 8		DELSSB2902	CH		At 0.5', Dark grey to black silty clay
	29 1					
	35 1					
5	35 7					
	42 3					
	43 6					At 6 0', Grades to brown to yellowish brown silty clay with very fine sand, some light grey mottling.
	48 7					
	28 7					
	31 2		DELSSB2910			
10	30 4			CL/ML		
	41 0					
	41 9					
	41 9					
	48 4		DELSSB2915			
15						

Total Depth 15 feet below ground surface.

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ENSAFE

BORING LOG for SB-30

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	10 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface conditions: Grass on brown sandy silt and clay soil.
	12 5					At 0 5', Dark grey to black clay with minor silt and some calcareous nodules 1mm to 3mm
	19 3		DELSSB3002			
	25 8			CH		
	32 3					
	29 5					
5						
	36 8					At 5 5', Grades to mixed brownish black clay and silty clay.
	37 6			CL		At 6 0', Iron concretions.
	43 1		DELSSB3008			
	19 8			CL/ML		At 7 5', Greyish brown to yellowish brown clay with silts and fine sands.
	33 4		DELSSB3010			
10						Total Depth 10 feet below ground surface
15						

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ENSAFE

BORING LOG for SB-31

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number. 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	10 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep.	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0 6					Surface conditions. Grassy area with gravel and sand, approximately 10 inches.
	21 0		DELSSB3102	CH		At 10.0", Dark grey to black clay with minor silt
	27 8					
	26 1					
	24 8					
5	24 8					
	30 8					
	41 0					
	49 9			CL		At 7 5', Brown to yellowish brown silty clay, increasing very fine sand content with depth
	52 9		DELSSB3110			
10						
						Total Depth 10 feet below ground surface.
						Note: Empty bag = 20 6 ppm on OVM
15						

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ENSAFE

BORING LOG for SB-32

Delfasco Forge
Offsite Investigation
Grand Praine, Texas

Project Number 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Dnilling Method	Direct Push Technology	Bonng Depth	10 feet
Drilling Company	*Ground Water Monitonng*		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface conditions: Grass on brown sandy silt and clay soil
	11 2			CH		At 0.5', Dark brown to dark grey silty clay with some calcareous nodules 1mm to 3 mm
	15 1		DELSSB3202			
	14 6					
	15 1					
5	10 8					
	13 8					
	14 6			CL		At 6 0', Brown to yellowish brown clay with silt and very fine sand
	14 6					
	13 8					At 8.5', calcium carbonate zone, approximately one foot in thickness
	15 1		DELSSB3210			
10						Total Depth 10 feet below ground surface.
15						

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BORING LOG for SB-33

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	10 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface conditions. Grass on brown sandy silt and clay soil.
	15 9			CL		At 0 5',Brown to grey sandy clay with some calcareous nodules 1mm to 1 cm.
	15 1		DELSSB3302			At 1 5', Dark brown to grey silty clay with some calcareous nodules 1mm to 3 mm
	13 8					
	12 1			CH		
	12 9					
5	12 9					
	12 5					At 6.0', Brown to yellowish brown clay with increasing silt and very fine sand with depth
	13 4					
	13 1			CL/ML		At 8 5', Calcium carbonate zone, approximately 2 inches thick
	8 3		DELSSB3310			
10						Total Depth 10 feet below ground surface.
15						

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ENSAFE

BORING LOG for SB-34

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/21/2005	Logged By	Kerry Hill
Drilling Method	Direct Push Technology	Boring Depth	10 feet
Drilling Company	Ground Water Monitoring		
Sampling Method	4 foot Shelby Tube with Plastic Liner		
EnSafe Rep	Kerry Hill		

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	27 4					Surface conditions: Gravel parking lot to 4 inches, with oily base material to 1 foot.
	8 7		DELSSB3402			At 1 0', Dark grey to black clay with minor silt
	8 2					
	7 8			CH		
5	10 4					
	10 0					
	9.4					
	11 2					At 7 0', tan to yellowish brown clay
	9 5			CH		
10	10 4		DELSSB3410			
						Total Depth 10 feet below ground surface.
15						

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ENSAFE

BORING LOG for MW-01

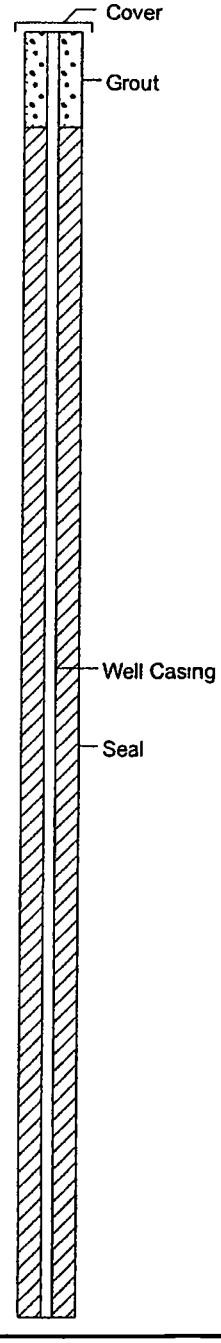
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	64 0 feet
Drilling Company	Strata Core	Well Depth	64 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-54 feet
Ensafe Rep.	Alycia Wieland	Well Screen	54-64 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0					Concrete
	0					Concrete base fill material
	0		DELSMW0102			Clay, dark gray, dry, no odor, medium plasticity
	0					
	0					
	0					
5	0			CL		
	0					
	0					
	0					
	0					gradual color change to dark brown, with sand
	5					Sandy Clay, calcareous inclusion to 12 feet, stiff, subrounded to rouned sand grains, fine to medium size grains
10	0			CL		
	0					
	0					
	0					Clayey Sand, brown to light brown, damp at 12 feet, sand content increasing with depth
	0			SC		
	0					
15	32			SW-SP		Sand, crumbly, fine grains, light brown, dry
	0					Clayey Sand, same as above, clay content increasing with depth
	0			SC		
	0					
	0					
20						

Well MW-01
Elev.. 490.81



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BORING LOG for MW-01

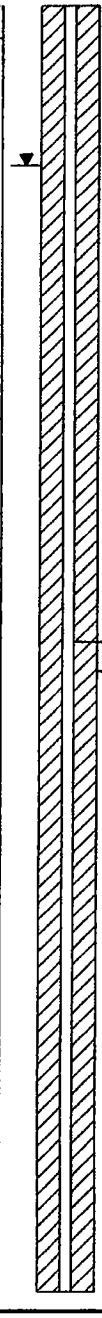
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	64 0 feet
Drilling Company	Strata Core	Well Depth	64.0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-54 feet
Ensafe Rep	Alycia Wieland	Well Screen	54-64 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20	0			SC		
	0					Sand, same as above
	0					
	0					wet at 23.5 feet
	0		DELSMW0123	SW-SP		
25	0					
	0					with clay at 26 5 feet
	0			CL		Sandy Clay, plastic, no odor, soft to stiff
	0					
	0					Sand, same as above, with silt
	0					
30	0					
	0					
	0					
	0			SM		
	0					
	0					
35	0					
	11					
	0			CL-SM		Silty Sandy Clay, highly plastic, no odor, moist
	0					Sand, same as above
	0			SW		
40	0					

Well MW-01
Elev . 490 81



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BORING LOG for MW-01

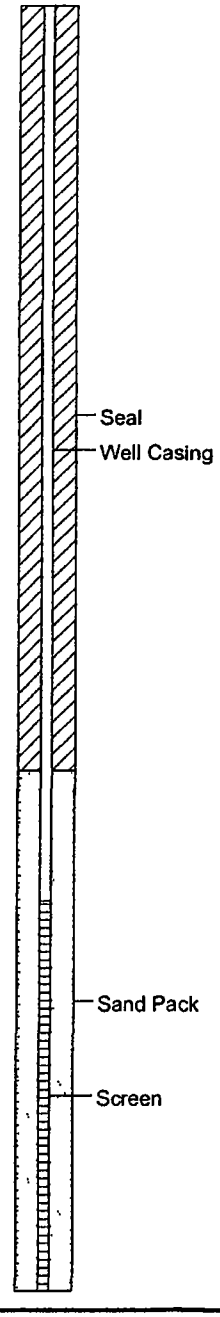
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	64.0 feet
Drilling Company	Strata Core	Well Depth	64 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	. 0-54 feet
Ensafe Rep	Alycia Wieland	Well Screen	54-64 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40	0					
	0					
	0					
	0					
	0			SW		
45	0					with clay from 45 5 to 46 feet (wet)
	0					
	0					
	0					
	0					
	0			CL		Clayey, stiff, laminate, some gray mottled with brown, no odor (Weathered Eagle Ford Shale)
50	0					Sand, same as above
	0					
	0					
	0					
	0					
	0			SW-SP		
55	0					
	0					
	0					
	0					
	0					
60						

Well MW-01
Elev · 490.81



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BORING LOG for MW-01

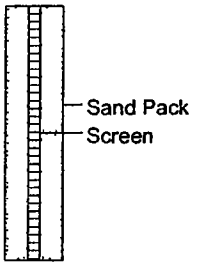
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	64 0 feet
Drilling Company	Strata Core	Well Depth	64 0 feet
Sampling Method	Shelby Tube w/ Plastic Liner	Well Riser	0-54 feet
Ensafe Rep	Alycia Wieland	Well Screen	54-64 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
60						Weathered Eagle Ford Shale, stiff to hard, clay like, gray in color, no odor, dry
				SH		Eagle Ford Shale
65						
70						
75						
80						

Well MW-01
Elev 490 81



Probe Refusal at 60 feet, Set monitor well at 64 feet,
Groundwater encountered at 23 5 feet, Top of Shale at 62 feet

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BORING LOG for MW-02

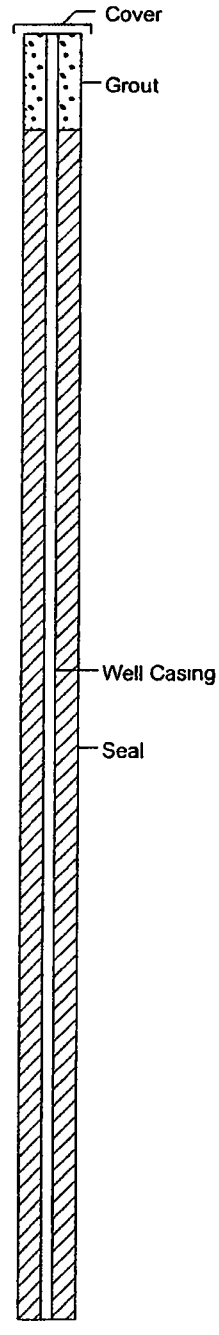
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	49.0 feet
Drilling Company	Strata Core	Well Depth	54.0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-44 feet
Ensafe Rep	Alycia Wieland	Well Screen	44-54 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0					Concrete
	0					Concrete base fill material, gravelly, sandy, silty
	0			CL		Clay, dark gray, no odor, plastic, occasional pebbles
	0					
	0					
	0		DELSMW0204			
5	0					
	0					
	0					
	0					mottled with light brown with silt
	0					
	0					color change yellowish orange with sand and silt (increasing with depth), dry, no odor
10	0					
	0			SC-SM		Clayey Silty Sand, yellowish orange, mottled with light gray, very soft
	0					
	0					
	0					
15	0					
	0					
	0					
	0					calcite deposit to 19 feet
	0			SM-SP		Sand, with silty and clay, yellowish orange, fine grains, subangular to angular
20	0					

Well: MW-02
Elev: 489.10



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ENSAFE

BORING LOG for MW-02

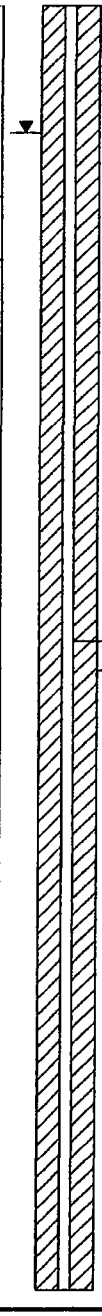
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number: 7540-009

Date Completed	. 09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	49 0 feet
Drilling Company	Strata Core	Well Depth	54 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	. 0-44 feet
Ensafe Rep.	Alycia Wieland	Well Screen	44-54 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20	0					
	0		DELSMW0222	SM-SP		WET, grains mized with medium size grains
	0					
	0			CL		Clay seem, stiff, sandy
	0					Sand, with clay (same as above) medium size grains
25	0			SM-SP		
	0					
	0					
	0			CL		Sandy Clay Seem
	0					Sand with clay intermitted (same as above)
	0					
30	0					
	0					
	0					
	0					with silt, wet
	0			SM-SP		
	0					
35	0					
	0					No Recovery all water
	0					
	0					
	0					
	0					
40						

Well· MW-02
Elev : 489.10



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ENSAFE

BORING LOG for MW-02

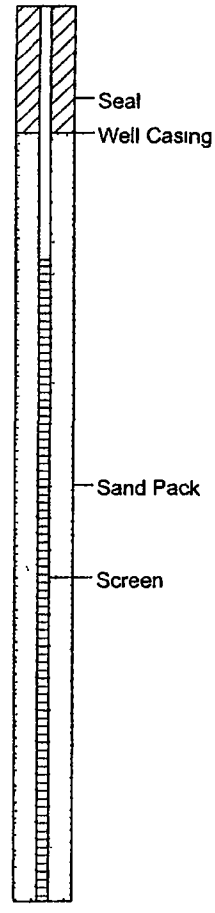
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	49 0 feet
Drilling Company	Strata Core	Well Depth	54 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-44 feet
Ensafe Rep	Alycia Wieland	Well Screen	44-54 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40	0					No recovery from 40-44 feet
	0					
	0					
	0					
	0			SM-SP		Sand, silty, wet, intermittened with clay, same as above
45	0					
	0					
	0					
	0					
	0					
50	0					Last 4 inches extremely hard clay, light brown mottled with greenish gray, no odor, dry (Weathered Eagle Ford Shale)
	0					
	0					
	0					
	0			SH		Eagle Ford Shale
	0					Probe refusal at 49 feet, Set monitor well at 54 feet, Groundwater encountered at 22 feet, Top of Shale was at 52.5 feet
55	0					
	0					
	0					
	0					
	0					
60	0					

Well MW-02
Elev : 489 10



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BORING LOG for MW-03

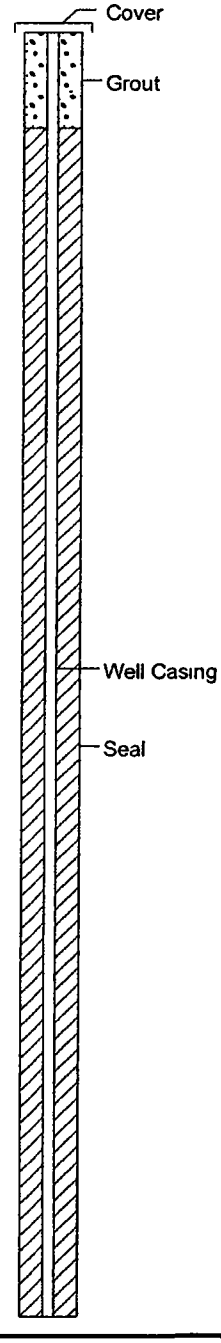
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	54 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0					
	0		DELSMW0302			Clay, rootlets, ocasional pebble, dry, no odor, light gray to gray, plastic, soft, oxidizing rootlets
	0					
	0					
	0			CL		
5	0					
	0					
	0					becomes a lighter gray mottled with light brown and yellowish orange, silty and sand intermittened
	0					
	0					
	0					Very clayey silty Sand, gray mottled with yellowish orange, fine to medium size grains, subrounded to rounded, soft, dry
10	0					
	0					
	0					
	0			SC-SM		
	0					
15	0					
	0					
	0					
	0					
	0			SM		Silty Sand, soft, no odor, fine grains, rounded to subrounded, dry, occasional clay zones
20	0					

Well. MW-03
Elev 488.83



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BORING LOG for MW-03

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number: 7540-009

Date Completed	: 09/23/03	Logged By	: Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	: 54.0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	: Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth In Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20	0			SM		
	0					
	0			SP		Very Coarse Sand
	0	X	DELSMW0323	SM		Sand, same as above
	0					WET
25	0					clay content decreasing to 28 feet
	0					
	0					
	0					
	0					
	0					
30	0			CL		Clay, some silt and sand, plastic, dry, no odor, yellowish orange, medium stiff
	0					
	0			SM-SP		Sand, same as above, wet, fine to medium size grains
	0					
	0					
35	0					
	0					
	0					
	0					
	0					
40	0			CL		Clay, with fine grains and silt

Well: MW-03
Elev.. 488.83

Well Casing
Seal

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BORING LOG for MW-03

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

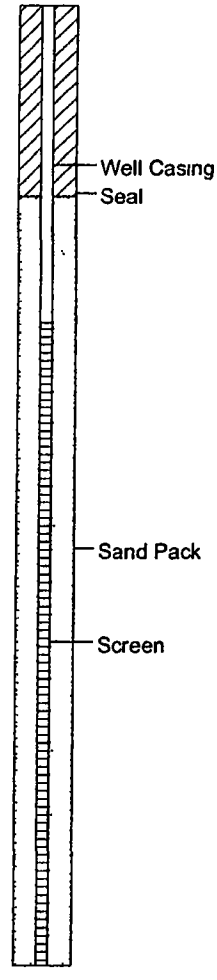
Project Number. 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	54 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40	0					Sand, same as above
	0					
	0					
	0					
	0					
45	0			SM-SP		
	0					
	0					
	0					
	0					
50	0					
	0			GC		Clayey Gravel, subangular to subrounded, up to 15mm in diameter, some silt and sands
	0			SM-SC		Sand, same as above
	0					Weathered Eagle Ford Shale, gray, laminated, hard, dry
	0			SH		Eagle Ford Shale
55	0					
	0					
	0					
	0					
	0					
60						

Probe refusal at 54 feet, Set monitor well at 55 feet,
Groundwater encountered at 24 feet, Top of Shale at 54 feet

Well MW-03
Elev . 488 83



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BORING LOG for MW-04

ENSAFE

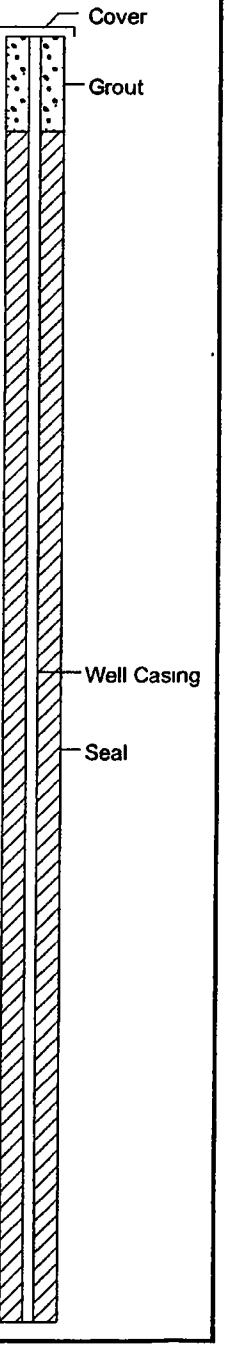
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number: 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0					Concrete
	0					Concrete base fill material
	0					Clay, dark gray, no odor, stiff, plastic
	0					
	0					
	0			CL		
5	0					
	0					same as above with sand, mottled with brown
	0					
	30					Sandy Clay, light brown mottled with yellowish orange, sand content increasing with depth
	26			CL		
10	79					small gravel seem ~1 inch thick, pebbles ~1cm in diameter with silt, clay content decreased
	0					
	0					Clayey Sand, crumbly, plastic, medium to fine grains, subrounded to rounded, slight odor, dry to damp, yellowish orange/brown, clay seems intermittened
	0					
	122		DELSMW0415			strong sweet smell (PCE)
15	0			SC-SM		
	0					
	0					
	0					
	0					
20	0					

Well: MW-04
Elev.. 489 71



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BORING LOG for MW-04

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	. Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION	Well MW-04 Elev.: 489.71
20	0					Clayey Sand, crumbly, plastic, medium to fine grains, subrounded to rounded, slight odor, dry to damp, yellowish orange/brown, clay seems intermittened	
	0						
	0						
	0		DELSMW0423			WET	
25	0						
	0						
	0						
	0						
	0						
	0						
30	0			SC-SM			Well Casing
	0						Seal
	0						
	0						
	0						
	0						
35	0						
	0						
	0						
	0						
	0						
40							

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BORING LOG for MW-04

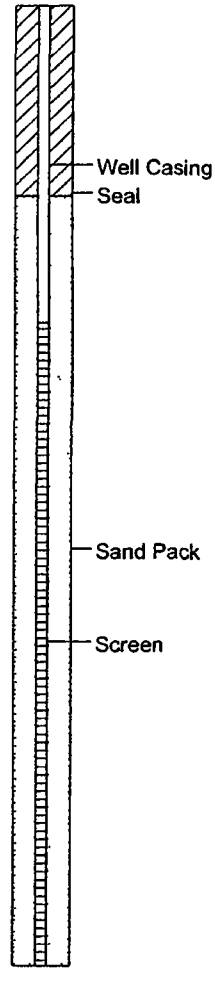
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/22/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40	0					Sand, with silt (some occasional clayey seems), wet, light yellowish brown
	0					
	0					
	0					
	0					
45	0			SM-SC		
	0					
	0					
	0					
	0					
	0					
50	0					
	0			SM-CL		Sandy Silty Clay to Clay, gray and light brown mottled together at 52 feet gravelly zone with pebbles up to 10mm in diameter, angular and not well graded, hard
	0					Weathered Shale from 52 to 53 feet, gray, laminated, extremely hard, dry, no odor
	0			SH		Eagle Ford Shale
	0					
55						Probe refusal at 53 feet, Set monitor well at 55 feet, Groundwater encountered at 24 feet, Top of Shale at 53 feet
60						

Well MW-04
Elev.. 489 71



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BORING LOG for MW-05

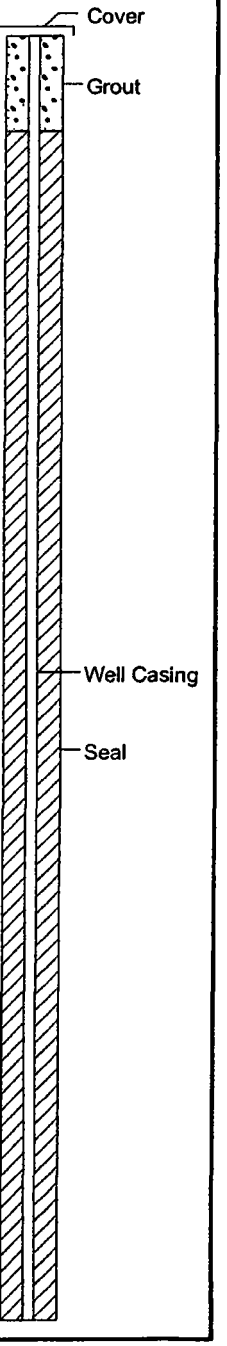
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Praine, Texas

Project Number 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55.0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Fill material and asphalt, sandy
			DELSMW0502	CL		Clay, dark gray, hard, no odor, dry, rootlets
5						color gradually turning to light gray occasional pebbles
						sand and silt increasing, light gray mottled with yellowish orange and brown
10				SC-SM		Very Clayey, Silty Sand, soft, dry, no odor
						increase silt and sand content, softer
15				SM-SC		Sand, silty, with clay (intermittent), strong yellowish orange
20						very plastic

Well: MW-05
Elev 490 11



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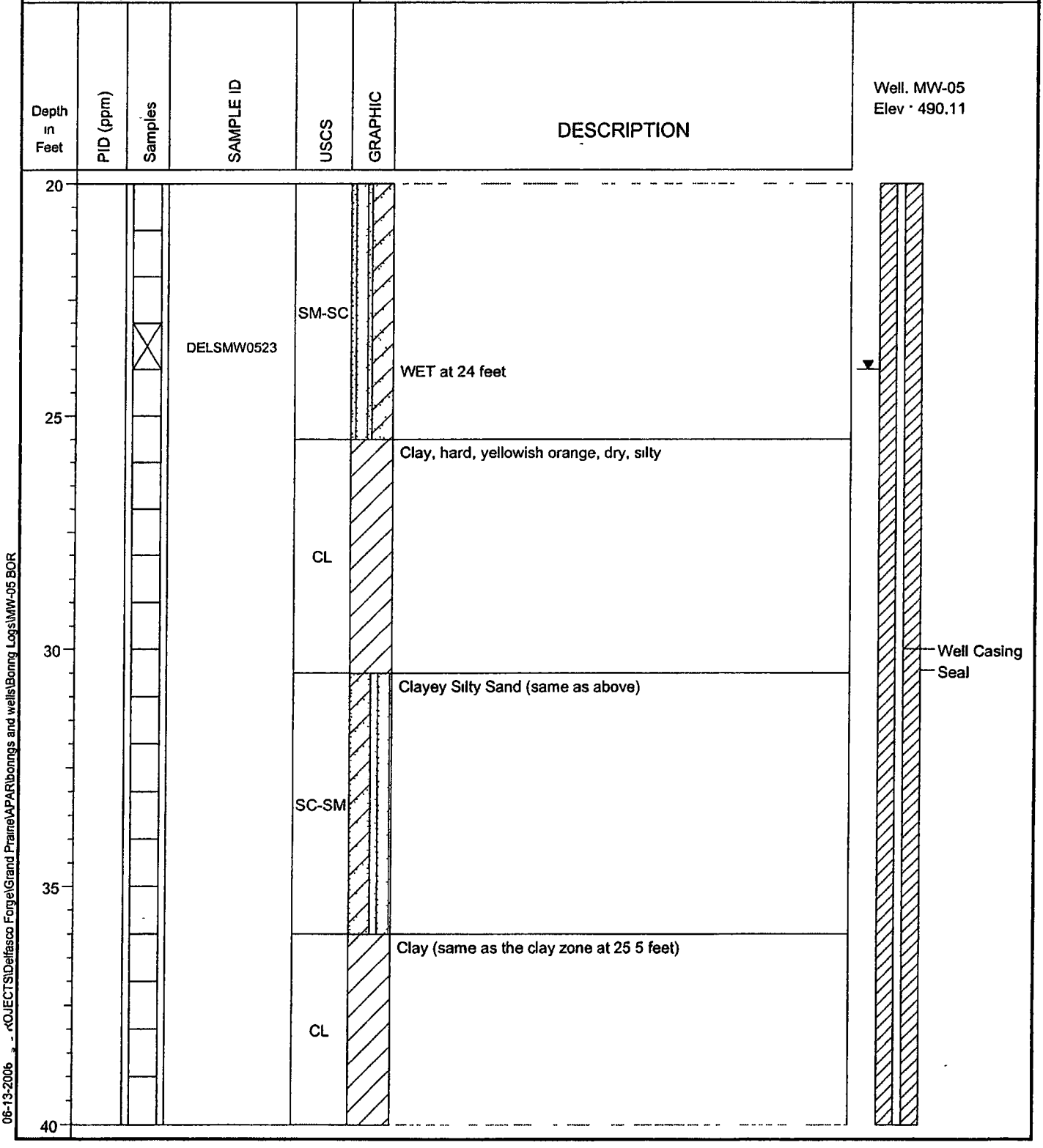
BORING LOG for MW-05

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet



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BORING LOG for MW-05

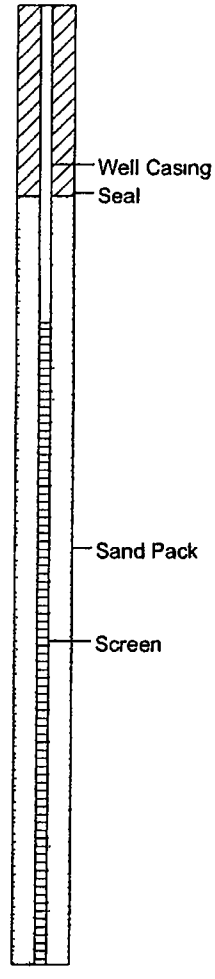
Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Project Number: 7540-009

Date Completed	09/23/03	Logged By	Alycia Wieland
Drilling Method	DPT Rig with HSA Overdrill	Boring Depth	53 0 feet
Drilling Company	Strata Core	Well Depth	55 0 feet
Sampling Method	Shelby Tube w/ Plastic Linear	Well Riser	0-55 feet
Ensafe Rep	Alycia Wieland	Well Screen	45-55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40						No Recovery, all water
				SC-SM		Clayey Silty Sand, wet, fine grains
45				CL-SM		Sandy Silty Clay, reddish (brick) color
				SC-SM		Clayey Silty Sand, Wet
				CL-SM		Sandy Silty Clay
50				SM		Silty Sand
						Weathered Shale
				SH		Shale
55						
60						

Probe refusal at 52 feet, Set monitor well at 55 feet,
Groundwater encountered at 24 feet, Top of Shale at 53 feet



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ENSAFE

BORING LOG for MW-6

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	0920 11/15/04	Geologist	Mark Henderson
Finished	1815 11/15/04	Northing	
Drilling Company	SCI	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	74 5'
Sampling	Continuous 5-foot runs		

Depth in Feet	Surf Elev	% Recovery	Samples	GRAPHIC	USCS	DESCRIPTION
0					AR	Surficial conditions: concrete/artificial material (AR), to approximately 0.5'
					CL	Grades from surficial concrete to clay, brown and stiff, at 0 5' Some sand and small pebbles present
5		CTS 40%				From 5 0', grades as silty clay, tan, dry
					CL/LS	From 6 0', grades with caliche nodules to 8 0'
10		100				Grades very hard below 8 0'
					LS/SP	At 11.5', grades as very fine sand seam (approximately 1/8"-thick)
15		100				At 15 5', 1/2"-thick sand seam
						At 17 5', 1"-thick sand seam
					CL	From 18.0', grades assandy clay, moist at 19 0'.
20		100				
					SP	(21-21 25') 3"-thick fine sand.
					CL	From 21 25', grades as silty clay, brown, very stiff.
					SP	(23-25 0') Grades as sand, very fine, well sorted Moist from 23-23.5'. Red clay lense at 24 5' (approximately 1" thick)
25		100			CL	(25-28 0') Grades as silty clay, brown, very stiff
						From 28 0', grades as sand, fine, tan Grades same to 73.0' (though grades medium grained at 65-70 0') No odors.
30		100				
					SP	
35		40				
		60				
40						

Well MW-6
Elev .

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BORING LOG for MW-6

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	0920 11/15/04	Geologist	Mark Henderson
Finished	1815 11/15/04	Northing	
Drilling Company	SCI	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	: 74.5'
Sampling	Continuous 5-foot runs		

Depth in Feet	Surf. Elev	% Recovery	Samples	GRAPHIC	USCS	DESCRIPTION	Well MW-6 Elev.
40							
45		60					
50		60	☒			Moist Sample DELSMW0650 collected at 50.0' @1130.	
55		30			SP	Wet at 54 0' Running sands below 55 0'	Sand Backfill
60		40					
65		50					
70		80					
75					SH	At 73 0', grades to shale, gray TD=30 0'; Well set at 30.0'.	
80						NOTE The terms "sorting" and "grading" refer to a degree of textural maturity, poor to well However, the two terms are descriptively the opposite of one another sorting is a geologic term, and grading an engineering term, but both are used to describe a range of grain sizes Thus, a well sorted sand is a poorly graded sand USCS symbols refer to grading	

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BORING LOG for MW-6A

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	1520 11/01/04	Geologist	Kerry Hill
Finished	1817 11/01/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	60 0'
Sampling	5-foot BBL		

Depth in Feet	Surf Elev	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
0					AR	Grades from surface as surficial 6 inches of concrete.
					CL	From 0 5', grades as silty clay, dark brown No recovery from 0 5'-5 0'
5		0 0			CH	At 5 0', grades to 8 0' as silty clay, light brown, sandy, to fat clay. Sporadic calcitic nodules (1-2cm) throughout.
		0.0				
		0 0				From 8 0', grades as interlaminated fat clays and silty sandy fat clays, light tan to yellowish brown
		0 0				
10		0 0			CH	Fining upwards texture apparent.
		0 0				
		0.0				
		0 0				
		0 0				From 14 0', grades as very fine- to fine-grained sand, silty, laminated, with occasional silty or clayey bed ~1" thick).
15		0 0				
		0 0				
		0 0			SP	Fining upwards texture apparent.
		0 0				
		0 0				(18 5-19 0') Grading as well sorted/poorly graded sand
20		0 0				
		0 0			CH	(21-22 5') Grades as fat clay, mottled tan and gray
		0 0			SC	(22 5-24 5') Grades as sandy and silty clay (very fine sand and silt), tan to yellowish brown
		0 0				
25		0.0				(24 5-30 5') Grades as silty sand, very fine- to fine-grained, tan to yellowish tan. Fines upwards (grades to medium-grained silty sand at 27.0') Grading laminated, medium-grained sands with silts
		0.0				
		0.0			SP	
		0 0				
		0 0				
30		0 0				
		0 0				From 30 5', grades as fat clay, tan, mottled with gray
		0 0			CH	
		0.0				
		0 0			SC	From 33 5', grades as silt and very fine sand, tan to peach color
					CH	(34-34 75') Fat clay
35		0 0				
		0.0				From 34 75', grades as fine sand, tan, well sorted/poorly graded, with no fines (clays/silts)
		0 0			SP	
		0 0				
		0 0				
40		0 0				

Well MW-6A
Elev

Sand Backfill

Granular bentonite surficial plug

Sand Backfill

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BORING LOG for MW-6A

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	1520 11/01/04	Geologist	Kerry Hill
Finished	1817 11/01/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	60 0'
Sampling	5-foot BBL		

Depth in Feet	Surf Elev.	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
40		0 0				From 40 0', grading as fine sand, tan, with very little silt fraction, laminated and well sorted
		0 0				
		0 0				
		0 0				
45		0 0				
		0 0	☒		SP	Sample 46-47 0' at 1726
		0.0				
		0 0				Iron staining at 48 0'. Groundwater at 48 0'
		0.0				At 49.0', grading as medium-grained sand, without fines, laminated
50		0 0				
		0 0				
		0 0				
		0 0				
		0 0			SW	At 53.0', grades as gravel with sand, tan.
55		0 0				
		0 0				From 55 5', grades as Eagle Ford Shale. TD=60 0'
		0.0			SH	
		0 0				
		0 0				
60		0 0				
65						
70						
75						
80						

Well MW-6A
Elev ·

▼ Sand Backfill

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BORING LOG for MW-7

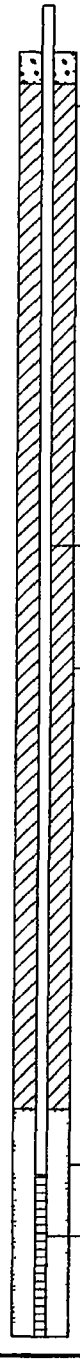
Delfasco
project #7540

300' north of Rinehart, on McArthur

Started	0925 11/02/04	Geologist	Kerry Hill
Finished	1119 11/02/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	60 0'
Sampling	5-foot BBL		

Depth in Feet	Surf Elev	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
0		0 0			AR	Grades from surface as asphalt (2"), to concrete (8"), to a lime base (10-14")
		0.0			CH	At approximately 1.25', grades as fat clay, dark gray to black, with calcitic nodules. Grades to brown silty fat clay near 3 0'.
		0 0				
		0.0				From 3 5', grades as silty fat clay, brown
5		0 0			CH	Calcitic nodules at 8-8.5'
		0.0				
		0 0				
		0.0			CL	From 8 0', grades with increasing silt and sand fractions, yellowish tan
		0 0				
10		0.0				Perched groundwater at 11 0', but not enough to sustain well.
		0 0			GC	From 11 0', grades as sand and gravel, poorly sorted, coarse, with silt and clay matrix Eagle Ford Shale fragments in gravel fraction. Overall, orangish brown
		0.0				
		0 0			SC	
15		0 0			CL	From 13.0', grades as sand, poorly sorted, medium- to fine-grained, with some small gravels Overall, tan to brown
		0 0				(15 5'-16.0') Grades as silty clay seam
		0 0				
		0.0			SM	From 16 0', grades as sand, silty, fine-grained, laminated, tan to light brown.
20		0 0				
		0 0				Fining upwards texture.
		0 0			CH	From 21.5', grades as fat clay, tan
		0 0			SM	From 22 5', grades as sand, silty, with clay.
		0 0				
25		0 0			SP	(24-27 5') Grades as sand, fine, with very little silt fraction Well sorted Fines upwards. Iron stained gravels (1cm-2cm) at 27-27 5'.
		0 0				
		0 0				
		0 0			CH	From 27.5', grades as fat clay, tan
30		0 0				
		0 0				
		0 0			SC	(31-36.0') Grades as sand and clayey sand, finely laminated, tan to peach in color.
		0 0				
35		0 0				
		0.0				
		0 0			SP	(36-46 0') Grades as sand, fine, well sorted, with rare fines. Fining upwards texture
		0.0				
		0 0				
40		0 0				

Well· MW-7
Elev .



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ENSAFE

BORING LOG for MW-7

Delfasco
project #7540

300' north of Rinehart, on McArthur

Started	0925 11/02/04	Geologist	Kerry Hill
Finished	1119 11/02/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	60 0'
Sampling	5-foot BBL		

Depth in Feet	Surf Elev	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
40		0 0 0 0 0 0 0 0 0.0			SP	At 43 0', grades wet but not runny Well sorted sand as above
45		0 0 0 0 0 0 0 0 0 0			CH	(46-47 0') Grades as fat clay, tan to orangish brown.
					SC	From 47 0', grades as sand, silty, with some clay. Sand is fine-grained
50		0 0 0 0 0 0 0 0 0.0			CL	From 50.5', grades as sand, very fine, with silty clay, mottled orange and gray
55		0 0 0 0 0 0 0.0			SC	From 53.5', grades as clay and fine-grained sand, laminated gray and orange
60		0.0 0.0 0.0			SH	(57-60 0') Grades as Eagle Ford Shale TD=60 0'. Well set at 60 0'.
65						
70						
75						
80						

Well MW-7
Elev..

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ENSAFE

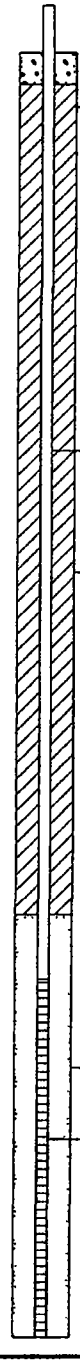
BORING LOG for MW-8

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	0940 11/01/04	Geologist	Kerry Hill
Finished	1141 11/01/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	54 0'
Sampling	5-foot split barrel		

Depth in Feet	Surf Elev	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
0		0 0			AR	Grades from surface as asphalt (2"), to brown sand Base (6")
		0 0			CH	From 2 5', grades as fat clay, silty, brown
		0 0				
		0 0				At 3 5', grades as brown, increased clay and silt fractions
5		0 0				
		0 0			SC	From 5 5', grades as silt, clayey and sandy, with fine sand. Calcitic concretions present (approximately 1cm diameter)
		0 0				
		0 0			SM	(8-11 0') Grades as sand, fine, silty, light brown, laminated Grades with 1"-thick layer of calcitic nodules at clay interface at 11.0'.
10		0 0				
		0 0			SC	From 11 0', grading with clayey and silty sand.
		0 0			CH	From 12 5', grades as clay, silty and sandy, tan to light brown
		0 0			SM	From 14 0', grades as sand, fine- to medium-grained, with silt Fining upwards, laminated, brown to orangish brown. Grades with
15		0 0			CL	gravels in a coarse sand matrix near 16 5'
		0 0			SW	From 16 5', grades as clay, silty
		0.0				(17.5-18 25') Grades as sand, coarse, with some gravel, very fine- to fine-grained sand matrix
20		0 0				At 18 25', grades as fat clay, tan.
		0.0				
		0.0				
		0 0			CH	
		0 0				
25		0 0				
		0 0				
		0 0				At 27 5', grades as 1"-thick very fine sand lens
		0 0				
		0 0				
30		0 0			SM	(28.5'-31 5') Grades as very fine sand and silt, laminated, tan Generally fining upwards, fluvial sequence
		0 0				
		0 0				From 31 5', grades as predominantly sand, with some silt. Fine-grained sand is well washed, laminated, light tan, well sorted
		0 0				At 34 0', grading as medium-grained and laminated
35		0 0			SP	
		0 0				
		0 0				At 37 0', grading as medium-grained and laminated
		0 0				
		0 0				
40		0 0				Sampel collected at 39-40 0' at 1120

Well MW-8 Elev



Concrete

2" dia PVC Riser

Granular bentonite seal

Sand Pack

0.010 Slotted PVC Screen

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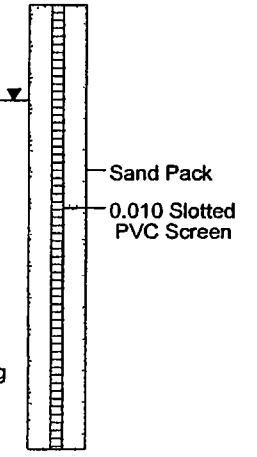
ENSAFE

BORING LOG for MW-8

Former Delfasco Forge Facility
114 Northeast 28th Street
Grand Prairie, Texas

Started	0940 11/01/04	Geologist	Kerry Hill
Finished	1141 11/01/04	Northing	
Drilling Company	StrataCore	Easting	
Drilling Method	Hollow Stem Auger	Depth Drilled	54 0'
Sampling	5-foot split barrel		

Depth in Feet	Surf Elev	PID (ppm)	Samples	GRAPHIC	USCS	DESCRIPTION
40					SP	Groundwater at 43 0'; wet but not dripping
45					SW	From 45 0', grades as sand, medium- to coarse-grained, beginning of fining upwards sequence to 28 0'
50					SM	From 48 0', grades as fine- to very fine-grained sand, with silt Tan to light brown
					SP	From 51 0', grades as sand, medium-grained, fining upwards
					SH	From 52 5', grades as Eagle Ford Shale, gray, laminated TD=54.0' Well set at 54 0'
55						
60						
65						
70						
75						
80						



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ENSAFE

BORING LOG for MW-09

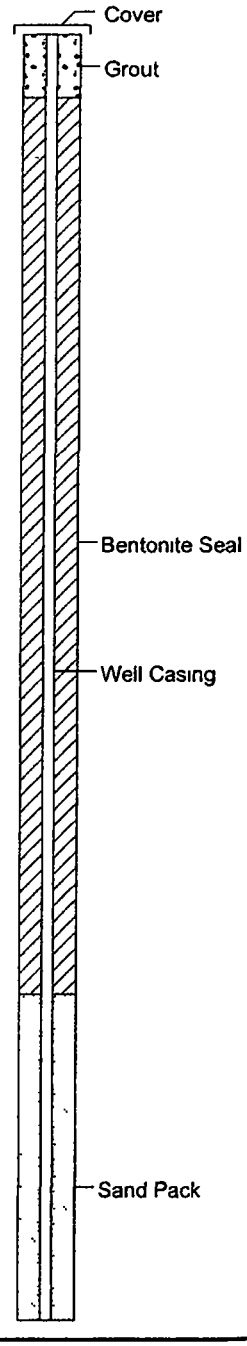
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/8/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	60 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	52 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 17 feet
Ensafe Rep	Kerry Hill	Well Screen	17 - 52 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete and asphalt, approximately 8-10 inches
2	0			CH		At 1 0', Dark brown silty to fat clay with calcareous nodules 1mm to 3mm increasing in frequency with depth Grades to lighter brown with depth.
4						
6				CL		At 4 5', Brown silty clay with calcareous nodules 0 5 inches to 1 5 inches
8	0					At 8.0', Brown sandy and clayey silt, soft Sand content increases with depth, laminated
10				ML		
12	0					At 12 0', Thin coarse sand interval, approximately 1 inch thick
14						
16						At 14 5', Tan to brown fine to very fine sand, laminated
18	0			SW		At 18 0', Silty zone, approximately 1 foot thick
20						

Well MW-9
Elev



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ENSAFE

BORING LOG for MW-09

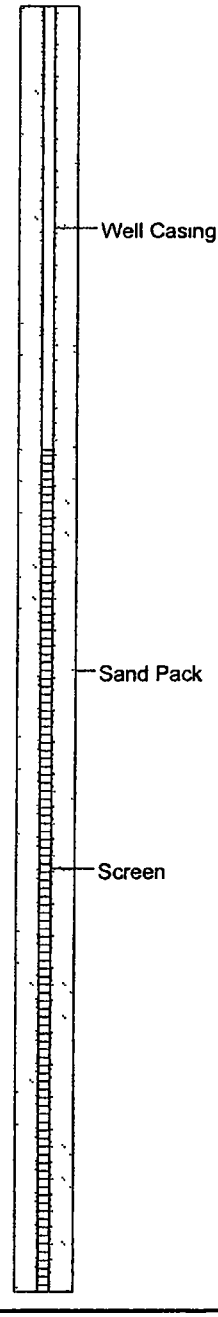
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/8/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	60 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	52 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 17 feet
Ensafe Rep.	Kerry Hill	Well Screen	17 - 52 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20						
22				SW		At 21 0', Clayey zone, approximately 2 inches thick.
24				ML		At 23 0', Tan to brown sandy, clayey silt, with clay content increasing with depth. At 24.5', Clayey gravel zone, approximately 2 inches thick
26	0			ML		At 25.5', Tan to brown sandy, clayey silt, laminated At 26.0', Grey mottling in sandy intervals and old root structures present
28						
30	0					Intermittent clayey zones, with an increasing clay content with depth.
32						
34	0			SM		At 34.0', Peachy brown very fine sand with less than 5% clay, finely laminated, some grey mottling At 36 0', Thin 1-inch thick clay zone
36						
38				ML		At 39.0', Tan to yellowish brown clayey silt with fine sand, laminated At 39.5', Thin 1-inch thick clay zone
40						

Well: MW-9
Elev.:



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BORING LOG for MW-09

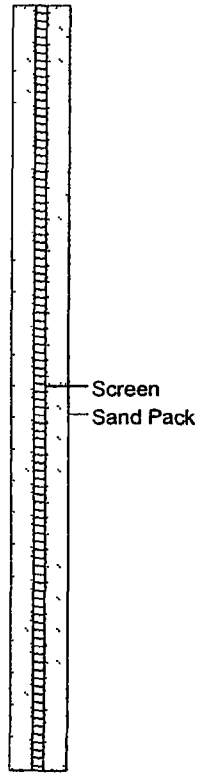
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	. 11/8/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	60 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	52 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 17 feet
Ensafe Rep	· Kerry Hill	Well Screen	17 - 52 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
40						
42				ML		
44				SW		At 43.0', Tan to yellowish brown fine to very fine sand, becoming coarser with depth Thin fining upward sequences within the sand unit.
46	0					
48	0		DELSMW0949			
50	0					At 50.0', Light grey to olive green clay, soft, weathered shale At 52 0', Dark grey shale, dry
52						Total Depth = 52 0 feet into Eagle Ford Shale Formation
54						
56						
58						
60						

Well MW-9 Elev



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ENSAFE

BORING LOG for MW-10

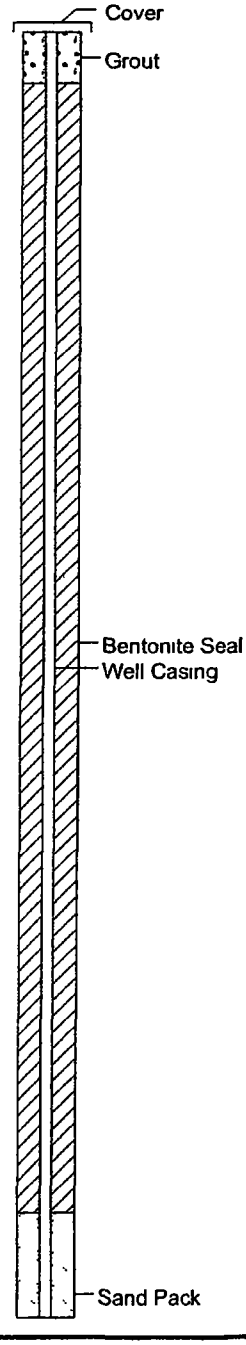
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/8/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	45 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	45.0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 25 feet
Ensafe Rep.	Kerry Hill	Well Screen	25 - 45 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions: Asphalt, approximately 7 to 9 inches.
2	0			CL		At 1.0', Brown silty clay with round, hard calcareous nodules 3mm to 5 mm increasing in frequency with depth Grades to siltier and sandier clay with depth
6						At 5 5', Brown fine sand interval, approximately 1 foot thick
8	0					
10				SM		At 10.5', Brown silty fine sand, interbedded with fine sand.
12	0			SW		At 12.5', Brown fine silty sand with less than 15% clay, laminated, with one inch coarse sand zone at contact with above unit
14				ML		At 14 5', Brown clayey silt, silty clay laminated, blocky, with grey mottling.
16						At 17 0', 2 to 4 inch seam of fine sand
18	0					At 17.5', 2 to 4 inch seam of fine sand At 18.5', 2 to 4 inch seam of fine sand
20						Sand content increases with depth Sand becomes coarser with depth
22						Grey mottling more frequent with depth.
24						At 24 25', hard cemented calcareous zone, approximately 1 inch thick.

Well MW-10
Elev ·



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BORING LOG for MW-10

(Page 2 of 2)

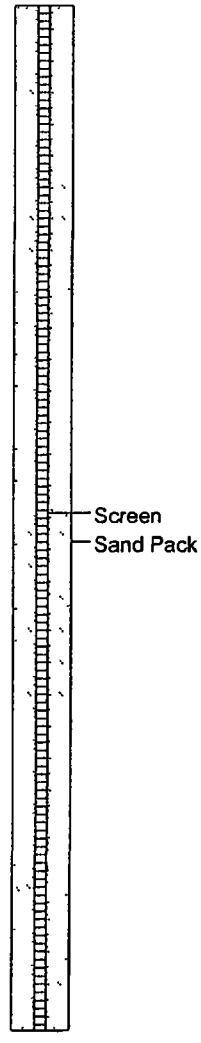
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/8/2005	Logged By	. Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	: 45.0 feet
Drilling Company	Groundwater Monitoring	Well Depth	45 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 25 feet
Ensafe Rep	Kerry Hill	Well Screen	25 - 45 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25				ML		
27	0			ML		At 26 5', Sandy silt with 2 inch sandy zones throughout.
29				SM		At 29.0', Brown fine sand, laminated. Silty sand, sandy silt, laminated.
31	0			SW		At 31 0', Fine sand, little silt or clay Sand becomes coarser with depth
33						
35				CH		At 34 5', Mixed tan, brick red, grey clay, laminated
37	0			SW		At 36 5', Tan to yellowish tan fine to medium sand with minor silt, wet
39				CH		At 37 5', Mixed tan, brick red, grey clay, laminated Weathered shale
41						At 41 0', Light grey to olive clay, moist and soft, weathered shale
43						At 42 5', Dark grey shale, more competent, moist
45						Total Depth = 45.0 feet into Eagle Ford Shale Formation
47						
49						

Well MW-10 Elev



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BORING LOG for MW-11

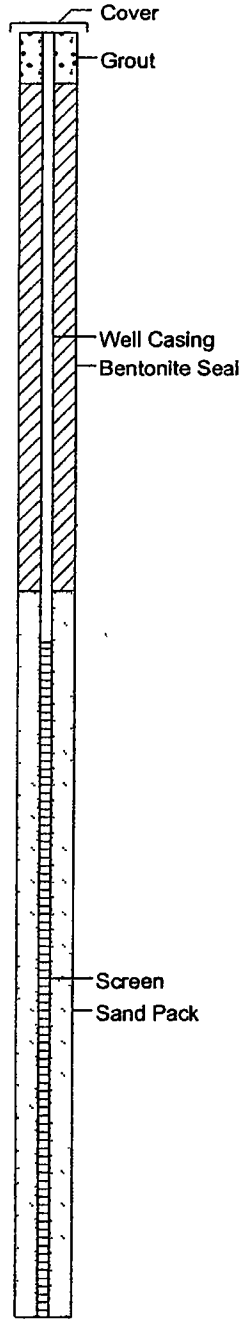
Delfasco Forge
Offsite Investigation
Grand Praine, Texas

Project Number 0888801609

Date Completed	11/10/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	45 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	42 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 12 feet
Ensafe Rep.	Kerry Hill	Well Screen	12 - 42 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete and asphalt, approximately 1 foot
2	0			CL		At 1 0', Dark brown silty clay with calcareous nodules 3mm to 1cm, mixed with grey clay and red silty clay Fill
4						
6				CH/CL		At 5 5', Brown and grey mixed fat and silty clay, fill material
8	0			ML		At 8 0', 4 inch thick calcareous zone Tan to yellowish tan sandy and clayey silt, dry, with increasing sand content with depth, calcareous nodules 0 5cm to 1cm.
10				SW		At 10.5', 6 inch fine sand zone, wet
12	0			GC		At 11 5', Brown to yellowish brown clayey, silty gravel and coarse sand Gravel is dominantly calcareous with some quartz.
14				ML		At 13 5', Brown to yellowish brown silty fine sand and sandy silt interbedded.
16						Silt and clay content decreases with depth
18	0					
20				CH/CL		At 19 0', Brown silty to fat clay
22				ML		At 20 0', Brown clay, increasing silt content with depth
24				ML		At 23 0', Peach to tannish brown silt and sandy silt with clay. Fine sand content increases with depth

Well MW-11
Elev .



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BORING LOG for MW-11

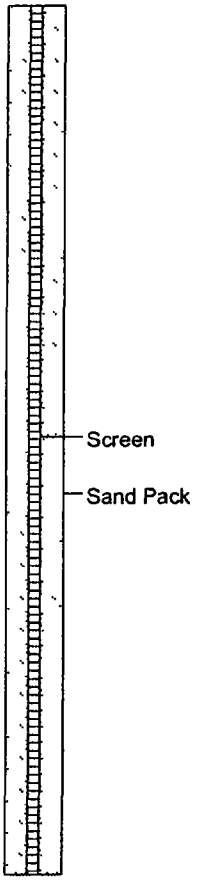
Delfasco Forge
Offsite Investigation
Grand Praine, Texas

Project Number 0888801609

Date Completed	11/10/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	45 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	42 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 12 feet
Ensafe Rep	. Kerry Hill	Well Screen	12 - 42 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25						
27	0			SM		At 25.0', Peach to tan interval continues, very fine sand and silt, laminated
29				SM/SC		At 28 5', Tan to yellowish tan silty and clayey sand, laminated, damp, soft
31	0			SM		At 31 0', 2 foot section missing. Very wet split barrel with silt and sand residue Water at approximately 32.5'
33						
35						
37				SM		At 34.0', Tan to yellowish tan silty medium sand.
				CL		At 36.0', Brick red silty clay
39	0		DELSMW1139	SC/SM		At 37 0', Tan to yellowish tan silty and clayey laminated sand, wet.
						At 38 0', Reddish grey silty clay, weathered shale.
41						At 39 0', Dark grey weathered shale, soft
43						Total Depth = 42 0 feet into Eagle Ford Shale Formation
45						
47						
49						

Well MW-11
Elev .



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ENSAFE

BORING LOG for MW-12

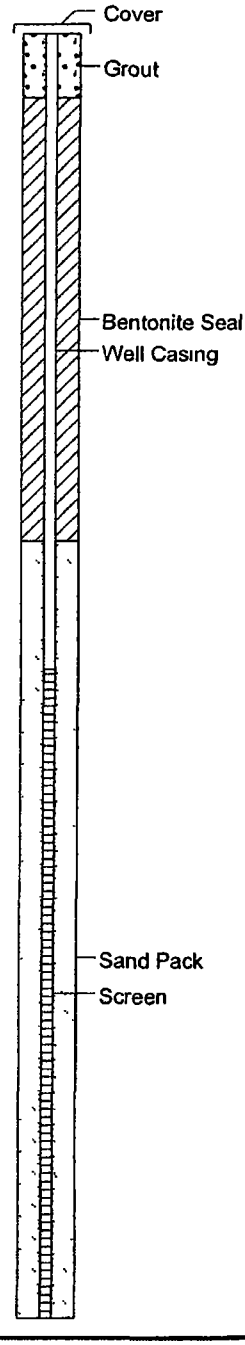
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/10/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	35 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	35 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 10 feet
Ensafe Rep	Kerry Hill	Well Screen	10 - 35 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions: Asphalt on concrete, approximately 1 foot thick
2	0			CH/CL		At 1.0', Dark brown fat to silty clay with calcareous concretions 2mm to 6mm, increasing in size with depth medium to fine sandy silt, cth depth
4						At 4.0', calcareous zone, approximately 1 inch thick.
6	0			CL		At 5.0', Brown silty or clayey fine sand with grey mottling. Sand and silt content increases with depth At 6 0', 1 inch sand zone. At 6 75', 1 inch sand zone
8				SM		At 8 0', Brown silty or clayey medium to coarse sand with calcareous grains
10				SW		At 9 5', Tan to yellowish tan medium sand with less than 10% silt and clay.
12	0					At 12 0', Fine sand laminated.
14				GC		At 12.5', Mixed clayey gravel and silty fine sand
16				CH		At 14.5', Tan silty clay with grey mottling
18	0			ML		At 16 0', Tan clayey silt with very fine sand, wet, increasing sand content with depth
20				SM/SC		At 17 5', Brown silty and clayey fine to very fine sand Sand 60%, silt 30%, clay 10%. Occasional thin clayey intervals in silty fine to very fine sand

Well: MW-12
Elev



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ENSAFE

BORING LOG for MW-12

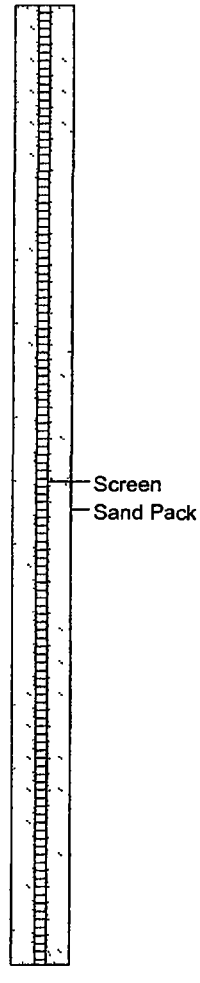
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/10/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	35 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	35 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 10 feet
Ensafe Rep	Kerry Hill	Well Screen	10 - 35 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20						
22				SM/SC		
24						
26				GW		At 25 5', Medium to fine sandy gravel with silt.
28	0			CH		At 26 5', Greyish brown clay, stiff, weathered shale Unit becomes darker grey with depth
30						
32	0					
34						At 33.0', Dark grey shale
36						Total Depth = 35 0 feet into Eagle Ford Shale Formation
38						
40						

Well MW-12
Elev



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ENSAFE

BORING LOG for MW-13

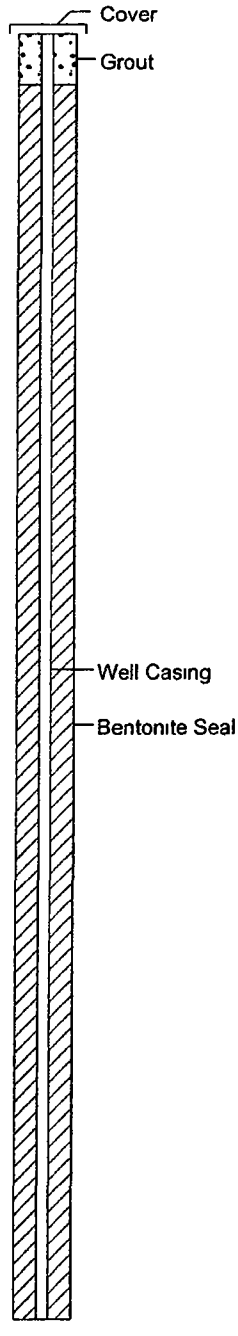
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/5/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	68 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	68 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 28 feet
Ensafe Rep	Kerry Hill	Well Screen	28 - 68 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions: Concrete and asphalt, approximately 7 to 8 inches.
2				CH/CL		At 1 0', Brown and black silty clay and clay fill material.
4				GC		At 3 5', Gravel base material with clay
6				CH		At 4.0', Brown to tannish brown silty clay with calcareous nodules 3mm to 8mm At 7 0', Calcareous nodules become soft, 1 to 2 inches in size Clay becomes siltier
8						
10				SM		At 10 5', Tan very fine sand with silt, laminated
12				ML		At 11 0', Fining upward clayey silt and silty fine to very fine sand, laminated, with calcareous nodules 1 to 1.5 inches.
14				SM		At 14 0', Brown to tannish brown silty sand with 10-15% clay
16				SM/SC		At 15.0', Brown to tannish brown clayey, silty very fine sand, laminated, with thin 1 to 3 inch zones of very fine sand or clay silt or silt Sand content increases with depth
18						
20						
22				CH/CL		At 22 0', Calcareous zone 1 inch thick or larger, hard, gravelly. At 22.5', Tan with grey mottling silty to very fine sandy clay
24						

Well MW-13
Elev



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ENSAFE

BORING LOG for MW-13

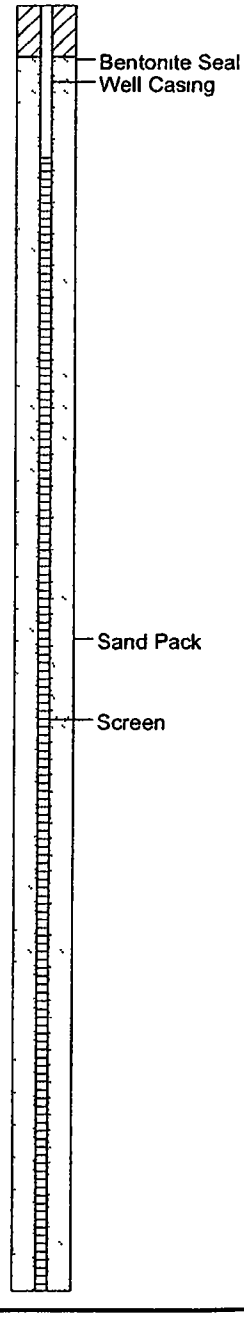
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/5/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	. 68 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	68 0 feet
Sampling Method	5' Split Barrel	Well Riser	. 0 5 - 28 feet
Ensafe Rep	Kerry Hill	Well Screen	28 - 68 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25				CH/CL		
27				ML		At 27 0', Tan with grey mottling silty and sandy clay, sand content increases with depth
29				SW		At 29 5', Tan fine sand
31				ML/SM		At 32 0', Tan to peach silt, sand, and clay, finely laminated and cross-bedded, moist Very fine sand layers, approximately 6 inches thick
33						
35				SW		At 35 5', Fine to very fine sand, laminated
37		☒	DELSMW1338			Contact is distince with iron and organic hard pan 1mm to 3mm thick, contact approximately 20 degrees to honzontal
39				CH/CL		At 38.5', Brown to tannish brown fat clay with silt and very fine sand Sand content increases with depth
41						
43				ML/SM		At 43 0', Tan with grey mottling mixed fine to very fine sand, sandy silt, and sandy, silty clay. Units 4 to 12 inches thick.
45						Grey staining in sandier intervals
47						
49				SM		At 49 0, Grey very fine silty and clayey sand

Well: MW-13
Elev



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ENSAFE

BORING LOG for MW-13

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/5/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	68 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	68 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 28 feet
Ensafe Rep	Kerry Hill	Well Screen	28 - 68 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
50						
52				SM		Thin 2 to 6 inch silty and clayey intervals throughout the unit
54						
56						
58						At 58 5', Wet
60				GM		At 59 5', Gravel, brown silty sand matrix
62				SM		At 60 5', Fine to very fine sand with silt.
64						At 63 0', Gravel zone, approximately 1 to 2 inches thick
66						At 64.0', Gravel zone, approximately 1 to 2 inches thick
68						At 66 5', Dark grey shale
70						Total Depth = 68 0 feet into Eagle Ford Shale Formation
72						
74						

Well MW-13
Elev .

Sand Pack
Screen

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ENSAFE

BORING LOG for MW-14

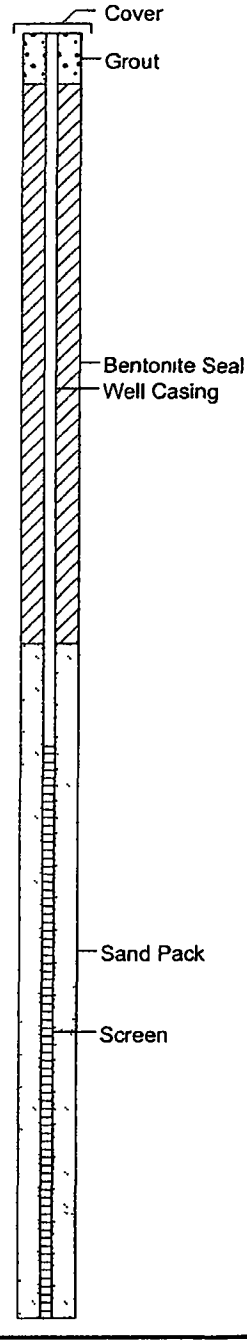
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/9/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	45 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	44 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 14 feet
Ensafe Rep	Kerry Hill	Well Screen	14 - 44 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete and asphalt, approximately 8 to 10 inches
2	0			CH		At 1 0', Dark grey to black clay with very minor silt and calcareous nodules 3mm and larger
4				CL/ML		At 3 5', Grades to brown mixed with dark grey silty clay, calcareous nodules increasing in size with depth
6				ML/SM		At 4 5', Brown to yellowish-brown silty clay and very fine sand, laminated 1mm to 3mm Sand content increases with depth
8	0					Sand intervals become thicker 1 to 3 inches with depth
10						Calcareous nodules 0 5 to 1 inch and soft
12	0					
14						
16						
18	0			CL/CH		At 17 0', Tan to yellowish brown silty clay to fat clay, finely laminated with grey mottling
20						
22	0			CL/ML		At 21 5', Tan to brown silty clay, laminted with grey mottling and sandy intervals Sand content increases with depth Sand becomes coarser with depth
24				SM		At 24 0', Coarse to medium sand, wet

Well: MW-14
Elev



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BORING LOG for MW-14

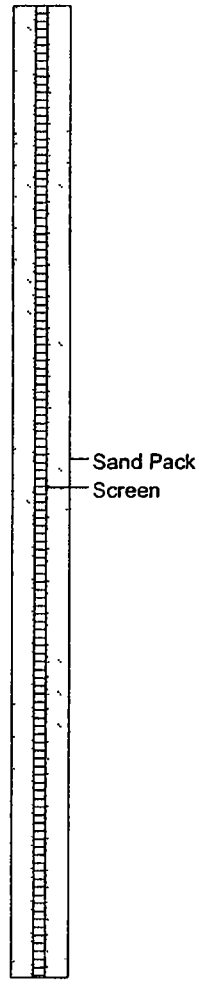
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/9/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	45 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	44 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 5 - 14 feet
Ensafe Rep	Kerry Hill	Well Screen	14 - 44 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25				SM		At 25 5', Tan silt with very fine laminated sand and clay.
27	0			SM		
29				CH/CL		At 28 5', Tan to yellowish tan clay Coarse sand and gravel in matrix
31						Grey mottling less common with depth
33	0					
35						
37						
39				CH/CL		At 38 0', Grey weathered shale
41	0					
43	0		DELSMW1443	GC		At 42 0', Gravelly interval in fat clay matrix, does not appear fluvial
						At 43 5', Olive grey to blue grey weathered shale
45						Total Depth = 44 0 feet into Eagle Ford Shale Formation
47						
49						

Well MW-14 Elev



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ENSAFE

BORING LOG for MW-15

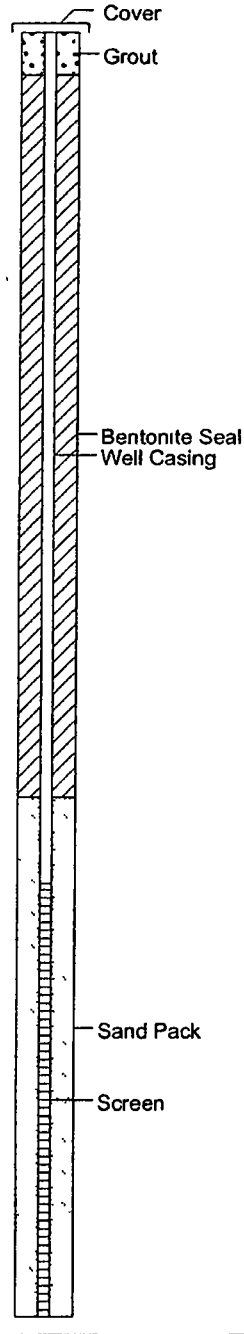
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/7/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	50 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	50 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Kerry Hill	Well Screen	20 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete, approximately 7 to 8 inches
2	0			CH		At 1.0', Dark grey silty fat clay
4				CL		At 3 5', Grades to brown to tannish brown silty clay with calcareous nodules 4mm to 1 5cm
6						
8	0			CL		At 8 0', Tan silty clay with some fine sand.
10				ML		At 10 5', Sandy silt with clay, soft
12	0					
14				SM		At 14.0', Brown to tannish brown silty fine sand with less than 10% clay
16				SM/SC		At 16 0', Silty and clayey fine sand
18	0					
20				SM		At 19 5', Silty fine sand with clay, laminated. Fine sand content increases with depth.
22	0			SM/SC		At 21 0', Silty sand, laminated Silt and clay contents increase with depth
24				CH		At 24 5', Tan fat clay with some silt and fine sand, very finely laminated
26				SM		At 25 5', Silty and clayey fine sands.
28	0			ML		At 26.5', Silt with 10-20% fine sand and 10-20% clay Silt and clay contents increase with depth Grey mottling increases with depth
30				SM		

Well MW-15
Elev



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BORING LOG for MW-15

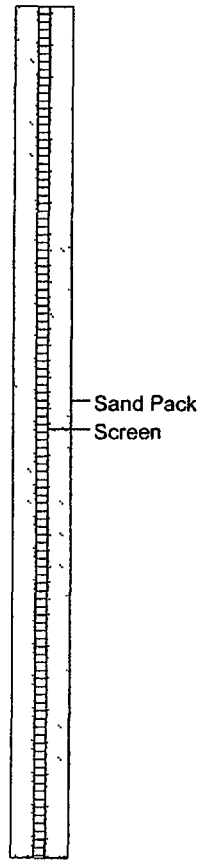
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/7/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	50 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	50 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Kerry Hill	Well Screen	20 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
30						At 29.5', Grey mottled fine sand with clay
32	0			SM		At 32 0', Very fine sand with clay, mixed grey mottle with orange iron stains
34				CH		At 34 0', Tan fat clay with some very fine sand and grey mottling
				SW		At 34 5', Brown very fine sand with silt and clay.
36				ML		At 35 5', Tan to brown very fine sand and clayey silt, laminated
38				ML/SM		At 37 0', Alternating 2 to 6 inch thick intervals of very fine sand and clayey silt
40						At 39.5', Light tan to brown fine to very fine sand with 5% silt and 5% clay Sand finely laminated with quartz and mica
42	0			SW		
44						
46	0		DELSMW1547			
48				GW		At 47 0', Brown gravel in coarse sand matrix
50						At 49 0', Grey shale, soft, moist
52						Total Depth = 50 0 feet into Eagle Ford Shale Formation
54						
56						
58						
60						

Well MW-15
Elev ·



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BORING LOG for MW-16

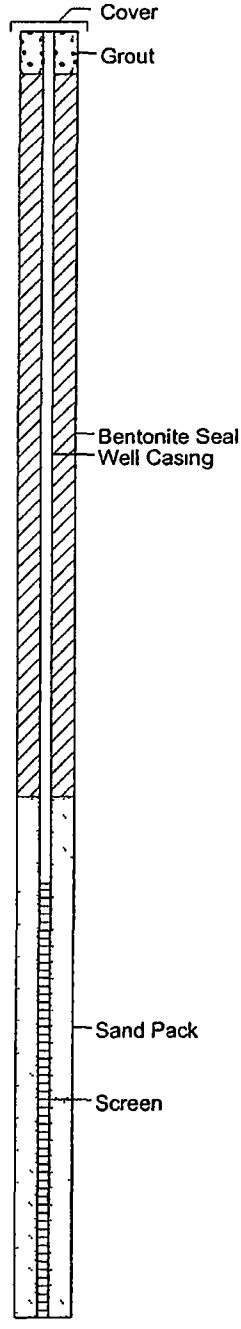
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	11/18/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	60 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	50 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Kerry Hill	Well Screen	20 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete, approximately 6 to 7 inches
2	0 2			CH		At 0 5', Dark grey fat clay with calcareous nodules
4				CL		At 4 0', Clay grades to chocolate brown, calcareous nodules more prominant.
6	0			ML		At 5.0', Very little recovery 5' to 10' Cuttings are brown to yellowish brown fine to very fine sand, clayey silt, with
10				ML/SM		At 10 0', Alternating brown and yellowish brown silty clay and clayey, sandy, silt Both contain fine to very fine sand Sand content increases with depth
12	0					
14				SM		At 13 5', Silty, clayey fine sand, laminated
16				ML		At 16.0', Brown to yellowish brown fine to very fine sandy, clayey silt Core breaks along sandier laminae. Silt 50%, Sand 30%, Clay 20%.
18	0					Sand content increases with depth
20						At 21 0', Grey mottling, approximately 2 feet thick
22	0					
24				SM		At 23 5', Fine to very fine sand with silt and clay. 1 to 2 inch thick coarse sand and gravel seam at base.
26	0			CH/CL		At 24 5', Brown to yellowish-brown silty to fat clay, with silty intervals.
28						At 28 0', Silty fine sand, wet, approximately 2 inches thick.
30						

Well MW-16
Elev.



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BORING LOG for MW-16

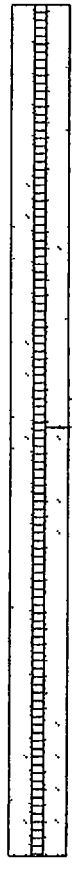
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	11/18/2005	Logged By	Kerry Hill
Drilling Method	4 1/4 ID HSA	Boring Depth	60 0 feet
Drilling Company	Groundwater Monitoring	Well Depth	50 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Kerry Hill	Well Screen	20 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
30				CH/CL		
32	0	☒	DELSMW1633			At 32 0', Brown fine to very fine sand with silt, minor staining Interbedded with silty and sandy clay 6 inches to 1 foot thick
34				SM		
36						
38	0					
40				SC		At 38 0', Silty fine sand with clay At 39.5', Thin layer of clay
42	0			SM/SW		At 40 5', Fine sand with minor silt and clay, laminated Sand coarsens with depth
44						
46				SW		At 45.5', Fine sand with silt and clay
48				GW		At 48.0', Clayey, sandy, gravel
						At 49 0', Olive green clay with grey mottling, weathered shale
50						Total Depth = 50 0 feet into Eagle Ford Shale Formation
52						
54						
56						
58						
60						

Well MW-16 Elev



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BORING LOG for MW-17

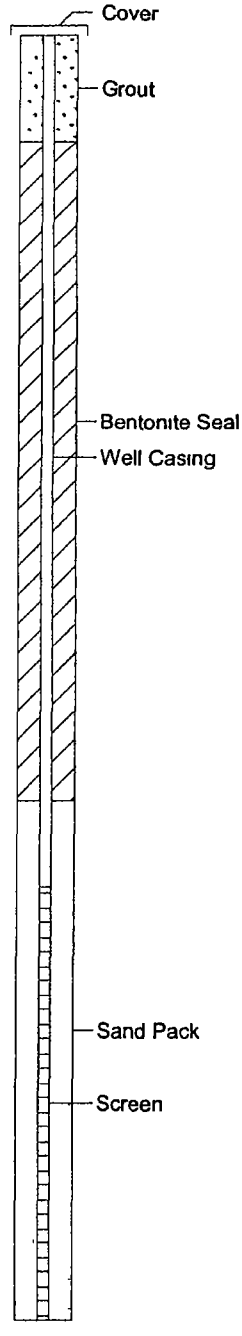
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number. 0888801609

Date Completed	5/22/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	55.0 feet
Drilling Company	SCI	Well Depth	55.0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	20 - 55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions: Concrete, approximately 6 to 8 inches.
2	0			CH		At 0 5', Dark grey silty fat clay with calcareous nodules (4mm to 1cm)
4	0			CL/ML		At 3.5', Grades to olive grey silty clay
6	0			CL/ML		At 6 5', Tan silty clay with some fine sand
8	0			CL/SM		At 8.5', Increasing sand content with depth
10	0			SC/SM		At 10 5', Yellowish brown clayey sand with some silt
12	0					
14	0					
16	0			SC		At 15 0', Grades to yellowish brown clayey sand
18	0		DELZMW1720			Interbedded clay seams 2 to 4" thick
20	0					
22	0					
24	0			CH		At 24.0', *Yellowish brown fat clay, very stiff.*
26	0					Increased moisture with depth.
28	0			SC		At 28 0', Yellowish brown clayey sand, moist
30						Increased sand content with depth

Well MW-17
Elev



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ENSAFE

BORING LOG for MW-17

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/22/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	55 0 feet
Drilling Company	SCI	Well Depth	55 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	20 - 55 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
30						
32	0			SC		
34	0			CH		At 33 0', Yellowish brown fat clay seam, 1 foot thick.
36	0			SC		At 34 0', Yellowish brown clayey sand, moist
38	0			CL		At 37 0', Yellowish brown clay seam, 1 inch thick
40	0			SC		At 37 5', Increased sand and moisture content with depth.
42	0					Interbedded yellowish brown clay seams throughout, approximately 0 5 inches thick
44	0					
46	0			SW		At 46 0', Yellowish brown flowing sands, very fine sand
48	0					
50	0 1					
52	0 5			CL		At 53 0', Yellowish brown clay laminated with light grey clay
54				SH		At 54 0', Grey shale, soft, moist.
56						Total Depth = 55 0 feet into Eagle Ford Shale Formation
58						
60						

Well MW-17 Elev

Sand Pack
Screen

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BORING LOG for MW-18

(Page 1 of 2)

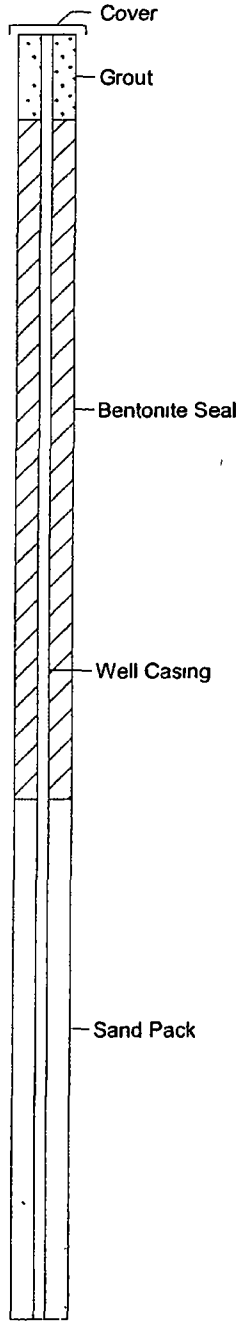
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/22/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	50 0 feet
Drilling Company	SCI	Well Depth	50 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 30 feet
Ensafe Rep	Alex Bartos	Well Screen	30 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0	0			CL/ML		Surface Conditions Grass covered At 0 0', Dark brown silty clay with some sands
2	0			CL		At 1.0', Dark brown clay
4	0					
6	0			CL		At 5 0', Grades to dark yellowish brown clay
8	0			SC		At 7.0', Yellowish brown clayey sand
10	0					
12	0					
14	0			CL/ML		At 13 0', Yellowish brown sandy clay with some silt, moist.
16	0					
18	0			SC		At 18 5', Yellowish brown clayey sand, very moist
20	0					
22	0		DELZMW1824	SC		At 22 5', Grey staining, slight petroleum odor
24	0					
26	0			SC		At 25 0', Yellowish brown clayey sand with silt Grey mottling increases with depth, very moist
28	0			SM		At 28 0', Yellowish brown silty sand, very moist
30				CL		At 29 0', Yellowish brown clay, stiff

Well MW-18
Elev



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ENSAFE

BORING LOG for MW-18

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/22/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	50 0 feet
Drilling Company	: SCI	Well Depth	50 0 feet
Sampling Method	. 5' Split Barrel	Well Riser	. 0 - 30 feet
Ensafe Rep	Alex Bartos	Well Screen	30 - 50 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
30	0			CL		
32	0			SW		At 31.0', Yellowish brown fine sand, moist.
34	0			SW		At 33.0', Yellowish brown fine sand, saturated
36	0					Interbedded clays, approximately 0 5 inches thick.
38	0					
40	0					
42	0					
44	0			CL		At 43 0', Yellowish brown stiff clay with grey mottles
46	0					
48	0			SH		At 47 0', Grey shale, soft, moist.
50						Total Depth = 50.0 feet into Eagle Ford Shale Formation
52						
54						
56						
58						
60						

Well MW-18
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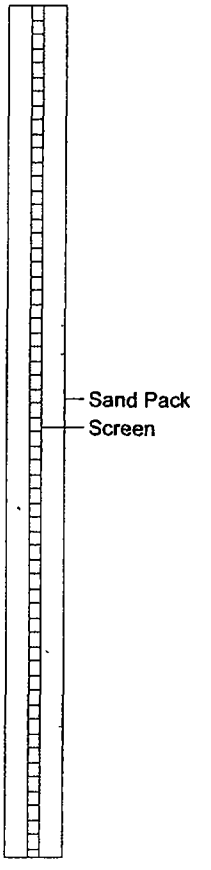

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BORING LOG for MW-19

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Delfasco Forge Offsite Investigation Grand Prairie, Texas	Date Completed	5/23/2006	Logged By	Alex Bartos
	Drilling Method	4 25 HSA	Boring Depth	32 0 feet
	Drilling Company	SCI	Well Depth	32 0 feet
	Sampling Method	5' Split Barrel	Well Riser	0 - 17 feet
Project Number: 0888801609	Ensafe Rep	Alex Bartos	Well Screen	17 - 32 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0				CL/ML		Surface Conditions Grass covered Dark brown silty clay
2	0			CL/ML		At 0 5', Reddish brown silty clay with some small gravel (fill material).
4	0					At 2 0', Dark grey silty clay, moist
6	0			CL/ML		
8	0					At 8 5', Olive grey silty clay, calcareous nodules (3mm to 1cm)
10	0			CL/ML		
12	0					At 11 5', Yellowish brown silty clay Grey mottling with iron concretions and calcareous nodules (4mm to 1cm).
14	0			CL/ML		
16	0		DELZMW1917			
18	0			CL/GC		At 18 0', Dark brown gravelly clay with large calcareous nodules (5mm to 1.5cm).
20						

Well MW-19
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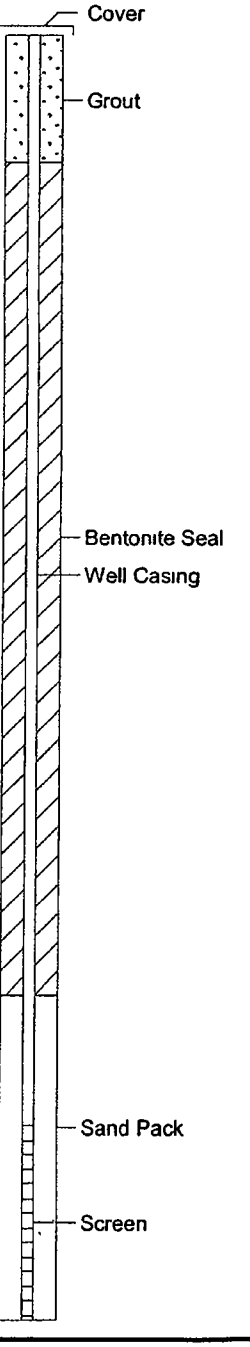

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BORING LOG for MW-19

(Page 2 of 2)

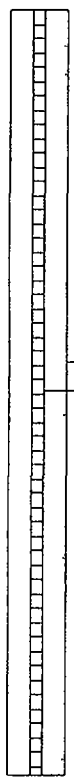
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/23/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	32 0 feet
Drilling Company	SCI	Well Depth	32 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 17 feet
Ensafe Rep	Alex Bartos	Well Screen	17 - 32 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
20	0			CL/CG		At 20 0', Yellowish brown silty clay with light grey mottling, very moist.
22	0			CL/ML		
24	0					At 24 0', Dark grey clay with iron concretions (oxidized)
26	0			CL		
28	0					
30	0			SH		At 30 0', Grey shale, soft.
32						Total Depth = 32 0 feet into Eagle Ford Shale Formation
34						
36						
38						
40						

Well MW-19
Elev



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ENSAFE

BORING LOG for MW-20

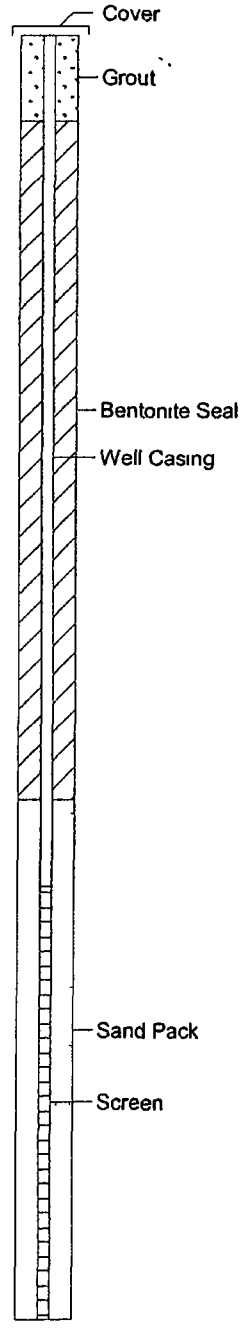
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	3/21/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	45 0 feet
Drilling Company	SCI	Well Depth	45 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	20 - 45 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						
	0			SM		Surface Conditions Concrete/asphalt, approximately 6 to 8 inches.
2						At 0.5', Yellowish brown silty sand with some gravel (fill material)
	0					At 1.5', Dark brown silty clay with calcareous nodules (2mm to 8mm)
4						
	0					Grades to olive brown silty clay with calcareous nodules (2mm to 8mm)
6				CL/ML		
	0					
8						
	0					
10						
	0					At 11 0', Yellowish brown clay with olive grey mottles Calcareous nodules (5mm to 1 5cm)
12						
	0			CL		Increased mottles with depth
14						
	0					
16						At 16 0', Yellowish brown silty clay
	0					
18				CL/SM		
	0		DELZMW2020			
20						At 20 0', Brown gravelly clay, very moist. Gravel sub-angular to rounded, approximately 5mm.
						Increased size and sub-angular shaped gravel with depth (1cm to 2cm)
22				CL/GC		
24						
						At 25.0', Yellowish brown clay, stiff
26						
				CL		Increased stiffness with depth.
28						
30						

Well MW-20
Elev



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ENSAFE

BORING LOG for MW-20

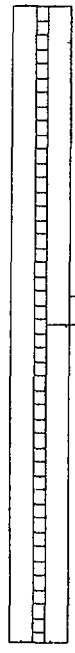
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	3/21/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	45 0 feet
Drilling Company	SCI	Well Depth	45 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	20 - 45 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
30						
32				CL		
34						At 34.0', Grades to light brown clay with some sands.
36				CL/SW		
38						
40				SC		At 38 5', Brown clayey sand
42				GC		At 40.5', Brown clayey gravel, sub-angular to rounded with some fine sands
44				SH		At 43.0', Grey shale, soft
				SH		At 44,0', Dark grey shale, competent.
46						Total Depth = 45 0 feet into Eagle Ford Shale Formation
48						
50						
52						
54						
56						
58						
60						

Well MW-20 Elev



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BORING LOG for MW-21

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

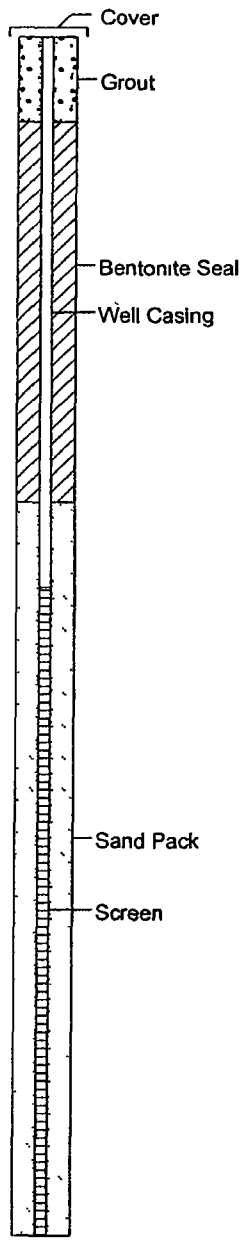
Project Number: 0888801609

Date Completed	5/23/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	28 0 feet
Drilling Company	SCI	Well Depth	28 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 13 feet
Ensafe Rep	Alex Bartos	Well Screen	13 - 28 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0				CL/ML		Surface Conditions Grass covered. Dark brown silty clay with some sand.
2	0			CL/ML		At 0.5', Reddish brown silty clay with some gravel (fill material)
4	0					At 2 5', Dark brown silty clay, stiff, very dry
6	0			CL/ML		
8	0					
10	0					At 10.0', Yellowish brown silty clay with calcareous nodules (3mm to 8mm)
12	0		DELZMW2113	CL/ML		
14	0					At 14 0', Yellowish brown clayey sand with grey mottling.
16	0			SC		Increased sand content and moisture with depth.
18	0					
20	0			CL/SC		At 19 0', Grades to yellowish brown sandy clay.
22	0			SW		At 20.0', Yellowish brown fine sands, saturated
24	0			CL/GC		At 22.0', Yellowish brown gravelly clay
26	0			ML/CL		At 23.5', Olive grey clayey silt. Blocky with iron staining (oxidized)
28				SW		At 25.0', Yellowish brown fine sands, saturated.
30				SH		At 27.0', Grey shale, soft.

Total Depth = 28 0 feet into weathered shale

Well. MW-21
Elev .



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BORING LOG for MW-22

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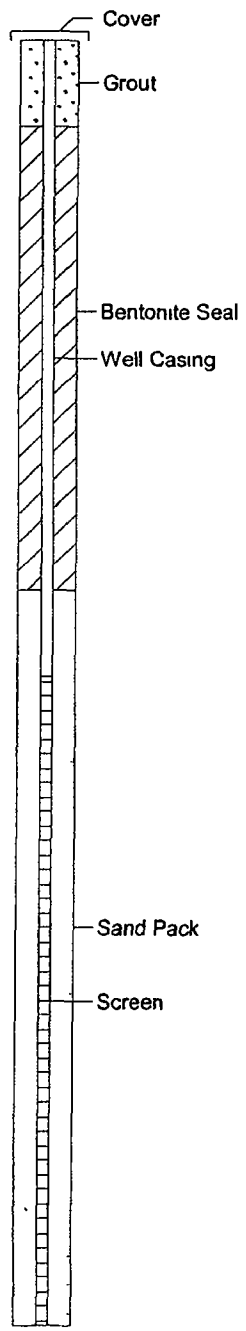
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	3/21/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	30 0 feet
Drilling Company	SCI	Well Depth	30 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 15 feet
Ensafe Rep.	Alex Bartos	Well Screen	15 - 30 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions. Concrete/asphalt, approximately 6 to 8".
				SM		At 0.5', Reddish brown silty sands with some gravel (fill material).
2	0			CL		At 1 0', Dark grey clay with calcareous nodules (5mm to 8mm)
4	0					
6	0			CL/SC		At 5 0', Yellowish brown sandy clay with calcareous nodules (5mm to 8mm)
8	0					
				CL		At 9 0', Yellowish brown clay seam.
10	0					At 10 0', Yellowish brown clayey sand
12	0		DELZMW2213	SC		
14	0					At 14 0', Yellowish brown silty fine sands
16	0			SM		
				CL		At 17.0', Yellowish brown clay seam, 2 inches
18	0					At 17 5', Yellowish brown silty fine sands, moist.
20	0			SM		Increased moisture with depth, saturated at 20 5'
22	0			CL		At 22 0', Yellowish brown stiff clay
24	0					At 24 5', Grades to light grey stiff clay
26	0 1			CL		
28	0 3			SH		At 28.0', Grey shale, soft.
30						Total Depth = 30 0 feet into Eagle Ford Shale formation

Well MW-22
Elev



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BORING LOG for MW-23

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	3/20/2006	Logged By	. Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	40 0 feet
Drilling Company	SCI	Well Depth	40 0 feet
Sampling Method	5' Split Barrel	Well Riser	. 0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	20 - 40 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions: Concrete/asphalt, approximately 6 to 8".
2	1 5			CL		At 0.5', Dark brown clay. Calcareous nodules increase with depth (5mm to 1cm).
4	0 8					
6	0 8			CL/ML		At 5 0', Yellowish brown silty clay with some fine sands
8	0			CL		At 6 5', Yellowish brown clay with grey mottles, laminated
10	0			SC		At 8.5', Yellowish brown clayey sand seam
12	0			CL		At 9 5', Yellowish brown clay with grey mottles, laminated. Calcareous nodules (5mm to 1cm)
14	0					Increased stiffness with depth
16	0			SW		At 15 0', Yellowish brown very fine sands, dry
18	0			SM		At 16 5', Grades to reddish brown silty very fine sands.
20	0		DELZMW2320	CL/ML		At 17 5', Yellowish brown silty clay seam, stiff
22	0			SW		At 18 0', Yellowish brown very fine sands. Sands increase in size and moisture with depth
24	0					

Well MW-23
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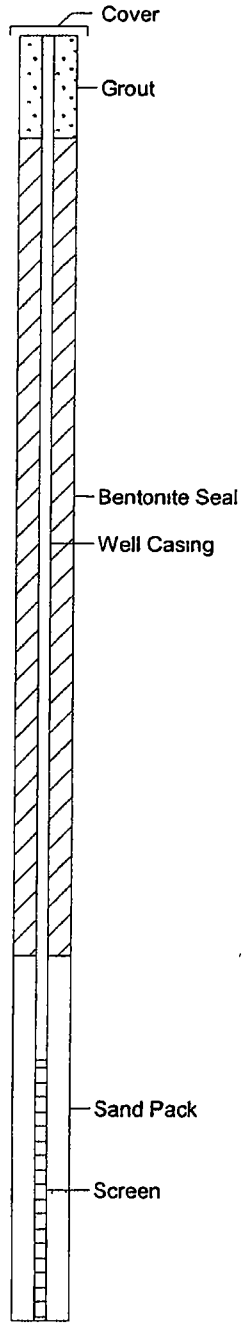

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BORING LOG for MW-23

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number 0888801609

Date Completed	3/20/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	40 0 feet
Drilling Company	SCI	Well Depth	40 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 20 feet
Ensafe Rep	Alex Bartos	Well Screen	. 20 - 40 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25	0					
27	0			SW		
29	0					
31	0					At 30 0', Grades to brown medium to coarse sands, saturated
33	0			SW		
35	0					
37	0 1					At 37 0', Grey shale, soft.
39	0			SH		Increasing competency with depth
41						Total Depth = 40 0 feet into Eagle Ford Shale formation
43						
45						
47						
49						

Well MW-23
Elev .

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BORING LOG for MW-24

(Page 1 of 2)

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/23/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	40 0 feet
Drilling Company	SCI	Well Depth	40 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 10 feet
Ensafe Rep	Alex Bartos	Well Screen	10 - 40 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete/asphalt, approximately 6 to 8".
	0			SM		At 0.5', Reddish brown silty sand (fill material).
2						At 1 0', Dark brown clay, stiff
	0			CL		
4						
	0					
6						At 6 0', Grades to olive brown silty clay with calcareous nodules (5mm to 1cm)
	0					
8				CL/ML		Increased calcareous nodules with depth.
	0		DELZMW2410			
10						At 10 0', Olive brown gravelly clay with fine sands Gravel sub-angular (1cm to 1 5cm), dry
	0					
12						
	0			CL/GC		
14						
	0					
16						At 16 0', Grades to yellowish brown gravelly clay with fine sands Gravel sub-angular (1cm to 1 5cm), moist
	0			CL/GC		
18				CL		At 18.0', Yellowish brown clay seam, approximately 2 inches
	0			CL/GC		At 18.5', Yellowish brown gravelly clay with fine sands.
20				GC/SW		At 19 5', Yellowish brown clayey gravel with sands, saturated.
	0			GM		At 20.0', Grades to yellowish brown silty gravel with sand. Gravel sub-angular to rounded (5mm to 2cm), saturated
22						At 22 0', Yellowish brown clay, stiff
	0			CL		
24						
	0			CL		

Well: MW-24
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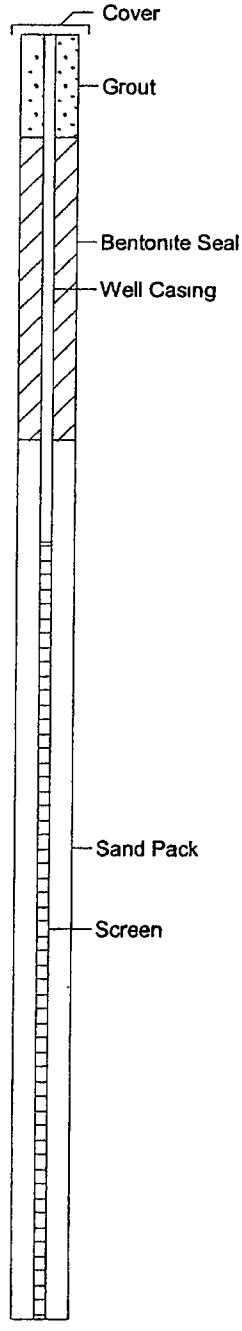

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BORING LOG for MW-24

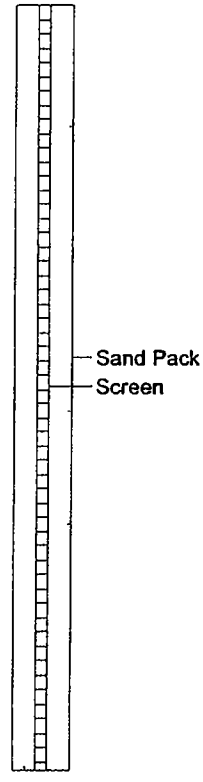
Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/23/2006	Logged By	Alex Bartos
Drilling Method	4 25 HSA	Boring Depth	40 0 feet
Drilling Company	SCI	Well Depth	40 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 10 feet
Ensafe Rep	Alex Bartos	Well Screen	10 - 40 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25	0			CL		At 24 5', Yellowish brown clay with light grey mottles
27	0					Increased grey mottles with depth
29	0					
31	0			CL		At 30 0', Increased silt and sand content with depth
33	0			CL/GC		At 32 0', Yellowish brown gravelly clay (2 5cm to 5cm).
35	0			CL/GC		At 34 0', Grades to olive grey gravelly clay
				GC		At 36 0', Clayey gravel seam with silts, saturated
37	0 1			CL/GC		At 36.5', Olive grey gravelly clay
				SH		At 38.0', Grey shale, soft.
39	0			SH		At 38.5', Grey shale, competent.
41						Total Depth = 40 0 feet into Eagle Ford Shale formation
43						
45						
47						
49						

Well MW-24
Elev.:



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BORING LOG for MW-25

(Page 1 of 2)

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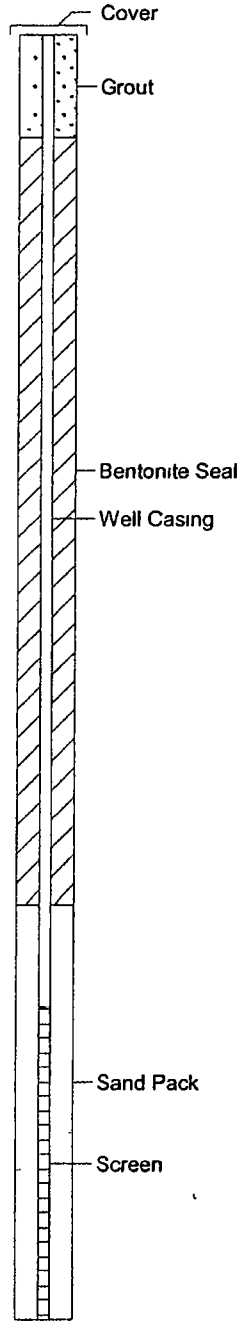
Delfasco Forge Offsite Investigation Grand Prairie, Texas	Date Completed	5/23/2006	Logged By	Randy Stuart
	Drilling Method	4 25 HSA	Boring Depth	41 0 feet
	Drilling Company	SCI	Well Depth	41 0 feet
	Sampling Method	5' Split Barrel	Well Riser	0 - 19 feet
Project Number 0888801609	Ensafe Rep	Alex Bartos	Well Screen	19 - 41 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
0						Surface Conditions Concrete/asphalt, approximately 6".
2	0			CL		At 0 5', Dark brown sandy clay with some coarse sand to pea gravel. Dry to very slightly moist, moderately plastic, hard
4	0					
6	0			CH		At 4 0', Olive grey clay with some sand and gravel Slightly moist, plastic, hard
8	0					
10	37 2			CH		At 8 0', Olive and brownish yellow mottled clay with some sand Slightly moist, plastic, hard
12	0					
14	413			CL/SC		At 12 0', Yellowish brown sandy clay with light grey clay mottling Slightly moist. Increasing sand content with depth Calcareous nodules layer, approximately 0.5 inches
16	16 8			SC		At 15.0', Yellowish brown clayey sand with light grey mottles Slightly moist, plastic, very firm
18	11 1			GM		At 17.0', Yellowish brown gravelly clay with sand Light grey and red mottling Wet, moderately plastic.
20	15 4		DELZMW2520			At 19 0', Yellow greyish brown clay with light grey mottling Moist, plastic
22	0			CH		
24	0					

Well MW-25
Elev



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ENSAFE

BORING LOG for MW-25

Delfasco Forge
Offsite Investigation
Grand Prairie, Texas

Project Number: 0888801609

Date Completed	5/23/2006	Logged By	Randy Stuart
Drilling Method	4 25 HSA	Boring Depth	41 0 feet
Drilling Company	SCI	Well Depth	41 0 feet
Sampling Method	5' Split Barrel	Well Riser	0 - 19 feet
Ensafe Rep	Alex Bartos	Well Screen	19 - 41 feet

Depth in Feet	PID (ppm)	Samples	SAMPLE ID	USCS	GRAPHIC	DESCRIPTION
25	0			CH		
27	0					
29	0					
31	0					
33	0			CL		At 32.0', Yellowish grey clay with gravel Slightly moist, plastic, very hard
				CL		At 33.0', Reddish brown iron bed, approximately 3 inches
35	0			CL		At 33 5', Greenish grey clay, laminated with some brownish yellow beds Moist, plastic Increasing dark beds
37	0					
39	0			CL/GC		At 38 0', Dark grey gravelly clay Wet, firm
41				SH		At 40 0', Dark grey shale, laminated Dry, hard
43						Total Depth = 41 0 feet into Eagle Ford Shale formation
45						
47						
49						

Well. MW-25
Elev .

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